Mapping the New Knowledges 2018
Brock University, Niagara, Ontario
Thursday, April 12, 2018

8 a.m. to 8:30 a.m.  Registration and Breakfast - Plaza 400 Level Mezzanine

8:30 to 9:00 a.m.  Welcoming/Opening Remarks - Plaza 400 Level Mezzanine
Diane Dupont, Interim Dean, Faculty of Graduate Studies
Keynote Address, June Corman, Professor
Department of Sociology, Faculty of Social Sciences

9:00 to 10:40 a.m. Concurrent Oral Session 1
1a  Bioscience and Health - Plaza 409
1b  Computer Science and Modeling - Plaza 311
1c  Approaches to Greening Society - Plaza 410
1d  Lessons Learned from Books and Film - Plaza 308
1e  Supporting the Needs of Others I - Plaza 408
1f  Behaviour - the Good, the Bad, the Ugly - Plaza 411
1g  Undergraduate Students Presentations 1 - Cairns 207

10:40 to 11:45 a.m. Coffee Break and Poster Session #1 Viewing - Cairns Complex Level 300

11:45 to 12:30 p.m. 2018 Faculty of Graduate Studies Awards - Plaza 400 Level Mezzanine
• Marilyn Rose FGS Leadership Award
• Michael Plyley FGS Mentorship Awards
• Jack Miller FGS Excellence in Research Awards

12:30 to 1:30 p.m. Lunch - Plaza 400 Level Mezzanine

1:30 to 2:50 p.m. Concurrent Oral Session 2
2a  Bioscience and Biotechnology I - Plaza 409
2b  Managing Success in the Workplace I - Plaza 308
2c  Meeting the Challenges of Life and Learning - Plaza 410
2d  What’s in the Game? - Plaza 311
2e  Supporting the Needs of Others II - Plaza 408
2f  Literacy - Physical, Mental, and Health - Plaza 411
2g  Undergraduate Students Presentations 2 - Cairns 207

2:50 to 3:50 p.m. Coffee Break and Poster Session #2 Viewing - Cairns Complex Level 300

3:50 to 5:15 p.m. Concurrent Oral Session 3
3a  Bioscience and Biotechnology II - Plaza 409
3b  Managing Success in the Workplace II - Plaza 308
3c  Issues and Ideas in Contemporary Education - Plaza 410
3d  Old Issues that Continue to Challenge Society - Plaza 311
3e  Societal Impact of Precarious Work, Pain Management, and the Pedagogy of Graphica - Plaza 408

5:15 p.m. Graduate Students’ Association Social - Skybar
Welcome to Mapping the New Knowledges 2018

At times, graduate studies can feel lonely and isolating. The Mapping the New Knowledges (MNK) Graduate Student Research Conference was created to help our graduate students remember that their individual studies are part of a bigger picture. This room today is filled with your peers and mentors who all want to see you succeed and continue your contributions to research at Brock University. Whether you are in the final stages of your research or you are just embarking on your research journey, we want you to know that your contributions are important and you are a valued member of the Brock community.

Today’s conference will be one of the most successful in our 13 year history. We have 84 oral presentations and 51 poster presentations being shared throughout the day. We have also broadened the conference to include fourth year undergraduates to give them a taste of graduate life at Brock. I would like to extend my thanks to the members of the MNK Committee for their efforts in planning this great event that showcases student-driven research at Brock.

Use today as an opportunity to network with students and faculty from other disciplines and learn about the breadth of other research endeavours being pursued across our campus. Some of the brightest ideas are born when we eliminate borders between disciplines. You never know where you may find inspiration for your next project.

Sincerely,

Dr. Diane Dupont
Interim Dean, Faculty of Graduate Studies

Keynote Speaker

June Corman is co-author (with Meg Luxton) of Getting By in Hard Times: Gendered Labour At Home and on the Job (University of Toronto Press, 2001), which received Honourable Mention for the John Porter Prize 2002. Research interests include: women and work, and social reproduction. She is author of articles on women working in the steel industry, in the education sector, and on farms. She is also involved with Women’s Studies and Labour Studies. June was awarded the Graduate Mentorship Award in 2012 in recognition of excellence in graduate student supervision and mentorship.
Faculty of Graduate Studies Awards

MICHAEL PLYLEY GRADUATE MENTORSHIP AWARDS

The Michael Plyley Graduate Mentorship Awards at Brock University were established in 2011 to recognize exceptional mentorship of graduate students by a core faculty member in one or more of Brock’s graduate programs.

The awards honour and recognize the essential role of mentorship in graduate education by graduate faculty supervisors in two categories:

- mentorship of master’s students only
- mentorship of both master’s and PhD students

Nominations are submitted by graduate students. It is an opportunity for graduate students to pay tribute to individual graduate faculty members who have provided them with outstanding support and encouragement in their development as graduate student researchers.

Value: Recipients in each category are awarded $1,000 to assist with ongoing graduate student mentorship.

MARILYN ROSE GRADUATE LEADERSHIP AWARD

The Marilyn Rose Graduate Leadership Award was established in 2014 to honour faculty, staff and students for contributions to graduate education at Brock. The award recognizes individuals for their vision and leadership on behalf of graduate studies at Brock in areas such as academic programming, research and scholarship, student services, and student experience initiatives — the kind of work through which a strong and vital graduate culture has emerged in support of graduate students and in support of the University’s academic and research goals.

Value: $500

JACK M. MILLER EXCELLENCE IN RESEARCH AWARDS

In 2013 the Faculty of Graduate Studies Excellence in Research awards were renamed to honour Dr. Jack Miller. Each year the awards recognize outstanding Master’s and Doctoral graduate students in a research based program from each of Brock’s Faculties. Dr. Jack Miller served as Associate Vice-President of Research and Dean of Graduate Studies from 1999 to 2004. Dr. Miller was actively involved in the design and construction of almost every campus building since the expansion of the Glenridge campus in 1967.

Value: $1000
Detailed Conference Schedule

8 to 8:30 a.m.  Registration and Breakfast  
Plaza 400 Level Mezzanine

8:30 to 9 a.m.  Welcome  
Diane Dupont, Interim Dean, Faculty of Graduate Studies

Keynote Address  
June Corman, Professor  
Department of Sociology, Faculty of Social Sciences  
Past recipient of the FGS Graduate Mentorship Award

9 to 10:40 a.m.  Concurrent Oral Session 1  
Plaza Levels 300 and 400  
Cairns Level 200

1a  Bioscience and Health - Plaza 409  
Chair: Esther Santos, PhD Applied Health Sciences

Robert Kumar, MSc Applied Health Sciences  
Use of the Variance Ratio to Facilitate Validation of Motor Unit Discharge Rates in the Flexor Carpi Radialis and the Tibalis Anterior Obtained by Decomposition of the Surface Electromyographic Signa.

Thomas Hoshizaki, MSc Applied Health Sciences  
Long-term reliability of motor unit discharge rates obtained by decomposition of the surface electromyographic signal.

Ricardo Schultz Martins, MSc Applied Health Sciences  
Is mental impairment during hyperthermia caused by high temperature or low brain blood flow?

Yixian Chen, MSc Applied Health Sciences  
Association between Obesity-Related Metabolic Markers, Dietary Factors, and Lung Cancer Risk

Meera Mahmud, MSc Applied Health Sciences  
Evaluation of the PLCom2012 Risk Prediction Model and National Lung Screening Trial Criteria for Selecting Individuals for Lung Cancer Screening

1b  Computer Science and Modeling - Plaza 311  
Chair: Margaret Thibodeau, PhD Biological Sciences

Adam Tonet, MSc Computer Science  
Modelling and Proving Cryptographic Protocols in the Spi Calculus

Fazle Tanjil, MSc Computer Science  
Deep Learning Concepts for Evolutionary Art

Pranab Kumar Ghosh, MSc Computer Science  
Modal and Relevance Logics for Qualitative Spatial Reasoning

Jay Douglas, MSc Computer Science  
Merging and Decomposition Variants of Cooperative Particle Swarm Optimization

Tyler Collins, MSc Computer Science  
A Modern Multi-Objective Approach to the Disease Gene Association Problem
1c Approaches to Greening Society - Plaza 410
Chair: Lauren Cripps, PhD Applied Health Sciences

Alison Feist, MS Sustainability
Dissecting collaborative environmental processes: examining qualities, interactions, and outcomes

Yuka Kataoka, MS Sustainability
Water resilience measurement in Remedial Action Plan

Brent Thorne, MSc Earth Science
Influences of catchment land cover characteristics on hydrological change in lake-rich Arctic permafrost regions.

Dana Harris, MS Sustainability
Indentifying xylogenesis and growth responses to weather in Pinus banksiana in a Northern Context

Emmanuel Akowuah, MA Geography
Farmers Access to Agricultural Information and its Impact on Smallholder Agriculture: A Case Study of the Asante Akim North Municipality, Ghana

1d Lessons Learned from Books and Film - Plaza 308
Chair: Julianne Burgess, PhD Educational Studies

Rick Castle, MA Classics
The Positioned Parasite: Philip in Xenophon’s Symposium

Skylar Kovacs, MA English
“It was their idea of tragedy, not his”: Biopolitical Modernity and Representations of Trauma in Virginia Woolf’s Mrs Dalloway

Amy Barlow, MA in Studies Comparative Literatures and Arts
Fracturing Representations of Fear in the French Banlieue

Brookelnn Cooper, MA History
Identifying the Anonymous Printer of Menno Simon’s “The Blasphemy of Jan van Leiden” (1627): A Typographical Analysis.

Tyler Adair, MA Studies Comparative Literatures and Arts
The Children of Marx and Coca-Cola: (Re)politicizing Contemporary Film Narratives of May 1968

1e Supporting the Needs of Others I - Plaza 408
Chair: Gianluca Agostinelli, PhD Educational Studies

Jane McClure, MA Child and Youth Studies
The Effect of ADHD Subtype Symptoms on Academic Achievement

Joseph Robertson, MA Applied Disabilities Studies
An Evaluation of a Telecommunication Model for Training Staff to Implement Evidence-Based Procedures with Children with Autism Spectrum Disorder

Rebecca Ensor, MA Applied Disability Studies
Pairing: Staff Training and its Relation to Treatment Outcomes for Children with Autism Spectrum Disorder
Camille Xinmei Rousseau, MA Child and Youth Studies  
Turning the page for Spot: Dogs as potential motivational reading buddies for young children

Adam Carter, MA Applied Disability Studies  
Displacement of Leisure Stimuli by Edible Stimuli: A Systematic Replication

**1f**  
**Behaviour - the Good, the Bad, the Ugly - Plaza 411**  
*Chair: Jessica Murphy, PhD Applied Health Sciences*

Katie Schiralli, MA Child and Youth Studies  
A cross-cultural examination of the relationship between personality and bullying behaviours

Natalie Spadafora, PhD Child & Youth Studies  
Exploring the Link Between Incivility and Bullying

Deanna Buchmayer, MSc Applied Health Sciences  
Fitspiration photos and quotes: Effects on body image in university women

David Brown, MSc Applied Health Sciences  
Examining Physiological and Psychological Responses to Social Evaluative Body Threat Conditions in University Male Varsity Athletes and Non-Exercisers

Hannah Rose, MSc Applied Health Sciences  
Where’s The Body In Embodiment?

**1g**  
**Undergraduate Student Oral Presentations Session 1 - Cairns 207**  
*Chair: Phil Wallace, PhD Applied Health Sciences*

Alana Wong, Biochemistry  
The effects of SRC on plant growth and silica content in cover crops and grapes

Zach Cronkwright, Physics  
Effects of Current Oscillation on the Production of Porous Silicon

Jeremy Dion, Physics  
Properties and Synthesis of Copper Doped As2Te3

Alicia Martin, Physics  
A Monte Carlo Model of the ELEKTA Agility Radiation Therapy Treatment Head

Falak Shoaib, Biomedical Science  
Skeletal Muscle Characterization of an Acute TazKD Mouse Model

**10:40 to 11:30 a.m. Coffee Break and Poster Viewing Session 1**  
Cairns Level 300  
*Chair: Jennifer Kelly, PhD Biotechnology*

1. **Kirina Angrish, MSc Applied Health Sciences**  
   *Do physically active women achieve positive body image throughout their pregnancy?*

2. **Bradley Baranowski, MSc Applied Health Sciences**  
   *Evidence of increased prefrontal cortex inflammation and amyloid precursor protein processing in a translational swine model of heart failure with preserved ejection fraction*

3. **Kimberley Bowen, MA Applied Health Sciences**  
   *What Constitutes An Expert Registered Nurse in Labour & Delivery? A Phenomenological Inquiry*
4. Hyacinth Campbell, MEd
   Shadeism: An Understanding of the Experiences of Racialized Black Female Students in Post Secondary Education

5. Jeremia Coish, MSc Applied Health Sciences
   Role of TAK1 in mast cell recognition and response to bacterial infection

6. Alyssa Davis, MSc Earth Sciences
   Microthermometry on halite fluid inclusions confirm paleoclimate during the Upper Silurian of the Michigan Basin

7. Kyle Delhom, MA History
   Deadweight: The Katyn Forest Massacre and the Emergence of Political Distrust in the 20th Century

8. Colin Dunne, MSc Applied Health Sciences
   A Comparative Analysis of In-Skate Pressure Distribution and Acceleration Time During Skating Starts Performed on Three Different Blade Pitch Settings

9. Adam Fischer, MA Geography
   A Domestic Geography of Money: How Mortgage Debt, Home Prices, and Toronto’s Condominiums “Prop up” the Canadian Economy

10. Emily Ham, MSc Earth Science
    Climate Change in the Niagara Region? A study of the upper Twelve Mile Creek.

11. Grant Hayward, MSc Applied Health Sciences
    Loss of sex hormones alters insulin signaling in the prefrontal cortex and hippocampus independent of heart failure in female aortic-banded Yucatan miniature swine

12. Alyssa Jackson, MSc Applied Health Sciences
    Should I Have to Look Good for You? Examining the Thin Ideal in Pop Music Lyrics on Women’s Body Image During Exercise

13. Caitlin Kelley, MA Applied Health Sciences
    Interventions Adopting Motivational Interviewing to Enhance Medication Adherence: A Systematic Review & Meta-Analysis

14. Mackenzie Kirkey, MA History
    NASCAR’s Efforts to Vanquish Organized Labor

15. Nancy Leathen, MA Applied Disabilities Studies
    Decreasing Food Selectivity Using the High-Probability Request Sequence: A Review

16. Aindriu Maguire, MSc Applied Health Sciences
    Mitochondrial regulation of allergic inflammation - The potential role of Tafazzin

17. Kate McGregor, MA History
    Christmas in the (German) Colonies

18. Cody McMahon, MA History
    Soldiers to Scholars: Veterans and Universities in Postwar Canada

19. Reghann Munno, MA Applied Disability Studies
    Increasing Young Children’s Compliance with Essential-Routine Procedures
20. Nyasha Nyereyemhuka, MEd  
*Student Equity and Inclusive Education Policy in Ontario: Perspectives of Five High School Principals*

21. Talha Rafiq, MSc Applied Health Sciences  
*Relationship between parenting behaviour, physical activity, obesity, and systolic blood pressure among children*

22. Michael Sencherey, MBE  
*The impact of foreign exchange rate and stock prices on rate of returns of Real Estate Investment Trust (REIT) in Canada*

23. Kristen Shaver, MSc Earth Sciences  
*Equatorial temperatures of the Visean (Carboniferous): a microthermometric analysis of halite*

24. Surim Son, MSc Applied Health Sciences  
*Cardiometabolic comorbidity, depression, and anti-depressant use among Canadian elderly - a cross-sectional analysis.*

25. Luis Vargas, MSc Earth Science  
*Elastic models of wrinkle ridges: Insights of the interior of Mars*

26. Joshua Wyatt, MBE  
*Impacts of Minimum wage and the Wage Gap In Canada*

27. Miroslav Zovko, PhD Interdisciplinary Humanities  
*Maps of 2008 Economic Crisis*

11:30 to 12:15 p.m. FGS Awards Presentation  
Plaza Level 400 Mezzanine  
Presentation of the 2018 Marilyn Rose Graduate Leadership Award and the Michael Plyley Graduate Mentorship Awards  
Recognition of the recipients of the 2017 Jack M. Miller Excellence in Research Awards

12:15 to 1:20 p.m. Lunch  
Plaza 400 Level Mezzanine

1:20 to 3 p.m. Concurrent Oral Session 2  
Plaza Levels 300 and 400  
Cairns Level 200

2a  
**Bioscience and Biotechnology II - Plaza 409**  
*Chair: Colton Watson, PhD Applied Health Sciences*

**Kailey Meehan, MSc Biotechnology**  
A Robust Time Resolved Assay for the Activity of a Lipid Kinase

**Ioannis Vlachogiannis, PhD Applied Health Sciences**  
Increased skeletal muscle cell glucose uptake by carnosol is via AMPK-dependent GLUT 4 glucose transporter translocation

**Hesham Shamshoum, MSc Applied Health Sciences**  
Attenuation of Muscle Cell Insulin Resistance by Rosemary Extract
Michael Yousef, MSc Applied Health Sciences
Inhibition of allergic inflammation by rosemary extract: effects on mast cell signaling pathways

**2b Managing Success in the Workplace I - Plaza 308**
*Chair: Jacqueline Beres, PhD Educational Studies*

Ali Anwar, MSc Management
The Personalization-Privacy Paradox in M-commerce: Loyalty Outcomes Explained Through Customers’ Flow Experience and Regulatory Foci

Runqian Liu, MSc Management
Unpacking the relationship between geographic diversity and performance for international young ventures: mediating role of internal social capital

Lola Abduvaitova, MSc Management
Learning Product Attributes from User-Generated Content for Dynamic Promotion Strategies

Zhangwei Lu, MSc Management
The influence of derivative usage on firm value

**2c Meeting the Challenges of Life and Learning - Plaza 410**
*Chair: Mitch Goldsmith, PhD Interdisciplinary Humanities*

Julianne Burgess, PhD Educational Studies
ESL Teacher Emotion Labour: Power, pedagogy and emotions

William Ankomah, PhD Educational Studies
Critical race theory: Why critical race theory matters in teacher education

Erica Walter, PhD Interdisciplinary Humanities
Do Adults Use Gesture to Facilitate Word Retrieval? - A Pilot Study

Tia Rogers-Jarrell, MA Applied Health Sciences
Through Their Eyes: Exploring older adults’ experiences with an Intergenerational Project

**2d What's in the Game? - Plaza 311**
*Chair: Rozalia Kouvelioti, PhD Applied Health Sciences*

Esther Santos, PhD Applied Health Sciences
“Why do they do it?”: A systematic review of motivation for exergaming

Cullum Brownbridge, MA Applied Health Sciences
Gladiator Gear: The Role of Equipment in Risk in American Football

Daniel Sailofsky, MA Applied Health Sciences
Drafting Errors and Decision-making Theory in the NBA Draft

Bianca Fucile, MA Applied Health Sciences
Who is on the Team? Exploring the Application of a Person Centred Care Approach on an Interdisciplinary Oncology Healthcare Team, from the Healthcare Provider’s Perspective.

**2e Supporting the Needs of Others II - Plaza 408**
*Chair: Natalie Spadafora, PhD Child and Youth Studies*

Samara Al-Hakeem, MA Child and Youth Studies
Improving Self-Compassion in Sexually Abused Girls Through Creative Interventions
Abbaigeal O’Leary, MA in Child and Youth Studies
Bringing Student Voices into the Sex-Ed Conversation

Tauhid Khan, MA in Child and Youth Studies
Boys’ Views and Experiences of Sex Education in Bangladesh

Willian Roger Dullius, Visitor Scholar - Nursing Department
Training Needs Analysis Instrument For Health Professionals Caring LGBT+ Individuals

Nicole Staite, MA in Child and Youth Studies
Dance with a B-E-A-T!: Recreational Dance Program with Behavioral Therapy for Children with Exceptionalities

2f  Literacy - Physical, Mental, and Health - Plaza 411
Chair: Christina Quintiliani, PhD Educational Studies

Jennie Petersen, PhD in Applied Health Sciences
Review of pedagogical approaches and quality physical literacy experiences for youth

Daniel Cursio, MEd
First-Aid: A critical component of physical and health literacies in schools

Taylor Downes, PhD in Educational Studies
Using Genius Hour in Teacher Education: Passion Projects Ensuring Better Quality Assignments

Jessica Murphy, PhD in Applied Health Sciences
Measuring the Effectiveness of a Mental Health Workshop to change Mental Health Literacy and Help-Seeking Behaviours in University Athletes, Coaches and Athletic Trainers

2g  Undergraduate Student Oral Presentations Session 2 - Cairns 207
Chair: Matt Mallette, PhD Applied Health Sciences

Matthew Jagas, History
The Triumphant Church: the Ascension of the Catholic Church in Nineteenth-Century Quebec

Emma Peddigrew, Child and Youth Studies
Improving Children’s Quality of Life With the B.E.S.T Program

Syed Raza, Neuroscience
The Effects of Social-Comparative Feedback on the Neural Control of Balance

Sarah Galway, Kinesiology
Perfectionism and psychobiological responses to social evaluative body image threats in male athletes

Stephanie Pereira, Kinesiology
Body Dissatisfaction and Appearance Stereotypes in Children Aged 3-6 Years: Impact of Physical Activity

3 to 3:50 p.m.  Coffee Break and Poster Viewing Session 2
Cairns Level 300
Chair: Sara Bauer, PhD Applied Health Sciences

1. Michelle Lesley Annett, MA Critical Sociology
Navigating Socially Devalued Forms of Work: Exploring the Lives of Mothers who Strip
2. Meghan Birbeck, MS Sustainability
   Flood perception of Toronto and Calgary residents with respects to the local floodplain

3. Emily Byrne, MA History
   Representations of Royalty: A Question of Gender and Rule under Mary II and Anne

4. Luwei Chen, MBE
   Provincial determinants of life insurance consumption in Canada

5. Valentin Davydov, MBE
   What Is The Cost/Benefit of Socially Responsible Investment?

6. Briann Dorin, MSc Biology
   Utilization of remote sensing technology to detect Riesling vineyard variability

7. Paul Ferrara, MEd
   Caring Teachers: Supporting Socio-Emotional Learning Within Elementary Classrooms

8. Allison Flynn-Bowman, MA Applied Health Sciences
   Not just Babysitters, Dads Parent Too: Helping fathers with the transition to fatherhood

9. Amanda Hansen, MA in Applied Health Sciences
   Father Involvement in Breastfeeding Duration and Exclusivity Rates

10. Jianping Hu, MBE
    Relationship between education level, work experience, and income: effect on quitting the program

11. Connor Jakobschuk, MBE
    The Potential Effects of a Minimum Wage Increase

12. Kaitlyn Kerridge, MA Applied Health Sciences
    Inside Out: Understanding How Mindfulness Promotes Good Mental Health Among University Students

13. Sarah Krul, MA History
    An Analyses of Interwar British Gender Norms Using The Private Life of Henry VIII Poster

14. Helen Liu, MEd
    The Impact of Video Games on Gender Socialization and Identity in Adolescence

15. Sahana Mahendirarajah, MEd
    Neocolonialism and Experiential Learning: Impact of Voluntourism in (Post)Colonial Sri Lanka

16. Catherine McHugh, MA Applied Disability Studies
    Behavioral Dentistry: A Literature Review

17. Jennifer Mooradian, MA Applied Health Sciences
    Leisure time physical activity and persons living with Down syndrome: a proposed narrative literature review

18. Dylan Nadeau, MA History
    Reform Politics and the Construction of the Second Welland Canal

19. Paul Michael Pilkington, MSc Earth Sciences
    A Tale of Two Lakes: Rise of the Green Algae
20. Sarah Revilla, MA Studies in Comparative Literatures and Arts  
(De)mystifying Manhood in Mexico

21. Soheila Belgheis Shahmohammadi, PhD Educational Studies  
Pre-service Teachers’ Preparedness to Integrate Technology into Teaching Mathematics

22. Kenneth Smith, PhD Educational Studies  
Mental Health Policy Development in Higher Education

23. Zain Karim Virani, MBE  
Interdependence between health, education and family characteristics: Evidence from Pakistan

24. Grant Yake, MBE  
The effects of Immigration on House Prices in the city of Toronto

3:50 to 5:10 p.m. Concurrent Oral Session 3
Plaza Levels 300 and 400  
Cairns Level 200

3a Bioscience and Biotechnology II – Plaza 409
Chair: Nigel Kurgan, PhD Applied Health Sciences

Colton Watson, PhD Applied Health Sciences
Can Low Dose Lithium Supplementation Attenuate Muscle Inflammation and Atrophy in the Tenotomized Soleus?

Danja Den Hartogh, MSc Applied Health Sciences
Building a mast cell: MAPK signaling influences epigenetic regulation of mast cell differentiation from bone marrow stem cells

Mackenzie Ruthven, MSc Applied Health Sciences
The influence of tafazzin on in vitro myogenesis

Alina Jaglanian, MSc Applied Health Sciences
Inhibition of MDA-MB-231 breast cancer cell proliferation and survival by rosemary extract

3b Managing Success in the Workplace II – Plaza 308
Chair: Kylie Dempster, PhD Applied Health Sciences

Mingshan Han, MSc Management
Leveraging mobile app classification and user context information for improving recommendation systems

Jiayu Wang, MSc Management
Public Communications and the Foreign Exchange Risk around the Global Financial Crisis

Xusheng Yan, MSc Management
Macro News Announcements and Volatility Spillover in Currency and Energy Markets

3c Issues and Ideas in Contemporary Education – Plaza 410
Chair: Jennie Petersen, PhD Applied Health Sciences

Anh Tram Bui, PhD Educational Studies
An Ethnographic Study Exploring “Intercultural Competency” for International Students
Tara Johnston, MA Child and Youth Studies
Literacy Intervention for Struggling Readers - Knowledge Mobilization in Our Communities

Nabin Maharjan, PhD Child and Youth Studies
Does mandatory community service program promote civic engagement of young people?
Experiences of young Nepalese Canadians living in GTA

Ashley Soucie-Vukmanich, MA Applied Health Sciences
Heart rate, parenting and adverse childhood experiences on risky and antisocial behaviors among youth

3d Old Issues that Continue to Challenge Society - Plaza 311
Chair: Emily Guertin, PhD Child and Youth Studies

Carolyn Fast, MA History

Ace Gammon-Burnett, MA History
A view of all religions in the world: Alexander Ross and the concept of religious diversity during the early Enlightenment

Mitch Goldsmith, PhD Interdisciplinary Humanities
Dying to be Gay: The Sex and Species Politics of Experimenting on ‘Gay’ Animals

Katelyn Pierce, MA Geography
Invisible Women: Uncovering mental, emotional, and embodied mental health experience with female autobiographical graphic novels

3e Societal Impact of Precarious Work, Pain Management, and the Pedagogy of Graphica - Plaza 408
Chair: Andreeanne Hebert-Heche, PhD Biological Sciences

Sandra Kroeker, MA Social Justice and Equity Studies
Intersectional Precarity

Grace Maich, MA Critical Sociology
Precarious Work and Communities in the Ontario Context

Rachel Richmond, MA Applied Health Sciences
A Phenomenological Analysis of Chronic Pain Self-Management

Zachary Rondinelli, MA Studies in Comparative Literatures and Arts
“More than Words” And Pictures: Temporal-Visual Modalities in Graphica & Its Impact on Literacy

5:15 p.m. Graduate Students’ Association Social
Pond Inlet
Robert Kumar, MSc Applied Health Sciences

*Use of the Variance Ratio to Facilitate Validation of Motor Unit Discharge Rates in the Flexor Carpi Radialis and the Tibialis Anterior Obtained by Decomposition of the Surface Electromyographic Signal.*

Electromyography (EMG) is a method for acquiring the electrical activity of muscles by using a skin surface electrode or needle/fine wire electrodes. The electrical activity of muscles is produced by motor units (MUs) which are functional units that contain an alpha motor neuron and all of the muscle fibers it innervates. The EMG data is used to assess muscle activity and underlying neurophysiological characteristics. In a clinical setting, a needle or fine wire electrode is used most often to study single MU characteristics. However, it is invasive and requires a professional to administer. Advancements in technology have allowed researchers to use surface EMG electrodes to acquire data regarding individual MUs at low percentages of maximal voluntary contraction. An EMG signal can be completely decomposed into its constituent MU potential trains (MUPTs). Using discharge times provided by EMG analysis software (Delsys, Inc., Boston, MA), we used spike triggered averaging (STA) to identify MUPTs from the electromyographic signal. Using STA requires a time-locked event to determine non-time-locked events in the complex EMG signal. The aim of this study is to further validate the STA technique by using a variance ratio to supplement the MUPT identification criteria.

Thomas Hoshizaki, MSc Applied Health Sciences

*Long-term reliability of motor unit discharge rates obtained by decomposition of the surface electromyographic signal.*

Advancements in surface electromyography (sEMG) techniques have allowed for understanding of motor unit activity of muscle tissue and the relationship to training effect. There has yet to be a reasonable form of reliability assessment of programs that decipher motor unit activity of human skeletal muscle at higher-contraction levels (60% max). 20 subjects reported to the laboratory for four sessions over a 13-week period, performing three contractions of both lower leg and forearm muscles at their 60% max. This was analyzed by the automated program (dEMG) to produce motor unit firing times (MUFT), this was used by the researchers to calculate the mean firing rate (MUFR). To assess the stability and consistency of these variables, the data was analyzed using two analysis of variance (ANOVA) models. The results imply that for both the lower leg and upper arm contractions, the long-term stability and consistency of the means are very good, without discrepancy amongst testing sessions. The results imply that motor unit firing rates through sEMG methods can be used to assess training effect.

Ricardo Schultz Martins, MSc Applied Health Sciences

*Is mental impairment during hyperthermia caused by high temperature or low brain blood flow?*

Mental function may be impaired by reduced brain blood flow and also during hyperthermia. As hyperthermia also reduces brain blood flow, it is unknown whether mental impairment is due to a direct effect of higher brain temperature, or due to a hyperthermia-induced reduction in brain blood flow. In this study, we will control the amount of brain blood flow by changing the amount of carbon dioxide being breathed, and test mental functioning with increasing levels of hyperthermia. Participants will be passively heated from a resting core temperature of ~37°C to ~39.5°C, and then cooled back down to their starting temperature. Heart rate, blood pressure, skin and core temperature, and brain blood flow will be measured throughout the experiment. Mental function and the perceptual measures of thermal sensation and comfort will be measured at each 0.5°C change in core temperature. The mental functioning tests will target executive function and working memory because of their high sensitivity to temperature changes and because these processes are critical in decision-making and occupational safety. It is hypothesized that mental function will decrease as core temperature increases due to reduction in brain blood flow rather than directly due to hyperthermia.

Yixian Chen, MSc Applied Health Sciences

*Association between Obesity-Related Metabolic Markers, Dietary Factors, and Lung Cancer Risk*

Obesity is associated with higher risks of many cancers but increased BMI exhibit a protective effect against lung cancer (LC). Results from previous studies suggest that increased c-peptide and highly sensitive C-reactive protein (hsCRP) are associated with higher risk of LC. The current study will investigate the relationship between obesity-related metabolic
markers, dietary factors, and LC risk. A matched case-control design will examine exposure in both groups. Controls will be matched to LC cases based on age, gender, ethnicity and smoking status. Individuals with previous cancers and diabetes will be excluded. Biomarkers (c-peptide, hsCRP and leptin) in serum will be measured using immunoassays. A structured epidemiological questionnaire will be used to extract data on additional variables: nutrition factors, BMI, family history of LC, education, self-reported chronic obstructive pulmonary disease (COPD), and smoking history. Multivariable conditional logistic regression analysis will be employed to study independent associations. The associations between biomarkers and LC will be stratified by smoking statuses, LC types and stages and reasonable interaction effects (e.g. gender, ethnicity) will be evaluated. If the causal relationship of biomarkers, nutrition factors between LC risk is observed, it will instigate researchers to explore novel interventions to mediate the biomarker and dietary habits.

Meera Mahmud, MSc Applied Health Sciences

Evaluation of the PLCOm2012 Risk Prediction Model and National Lung Screening Trial Criteria for Selecting Individuals for Lung Cancer Screening

Lung cancer (LC) is the leading cause of cancer death in North America. Cancer screening trials, such as the PLCO (Prostate, Lung, Colorectal and Ovarian) and NLST (National Lung screening trial) evaluate LC mortality. This study compares two selection criteria models - the NLST and the PLCOm2012 - for selecting smokers over the age of 55 for screening who may develop or have already developed LC. The purpose of this study is to evaluate what characteristics or risk factors of these smokers are identified by one criteria and not the other. Contingency table analysis and logistic regression using STATA software were used to analyze the results of applying both criteria on the population. Higher LC cases were found using the PLCOm2012 criteria than the NLST in various individual characteristics. For example, the NLST criteria detected <1% of LC cases in individuals with family history of LC, whereas the PLCOm2012 model detected 3.5%. Since smokers are at high-risk of dying from other health related causes, this study will also evaluate which risk factors are highly associated with competing causes of death. Screening may not be beneficial for those dying within 5 years from other causes. Overall, preliminary results show that the PLCOm2012 risk prediction model takes more risk factors into account and identifies higher proportions of LC cases compared to the NLST model.

Adam Tonet, MSc Computer Science

Modelling and Proving Cryptographic Protocols in the Spi Calculus

The spi calculus is a process calculus used to model cryptographic protocols. A process calculus is a means of modelling a system of concurrently interacting agents, and provides tools for the description of communications and synchronizations between those agents. The spi calculus is based on Robin Milner’s pi calculus, which was itself based upon his Calculus of Communicating Systems (CCS). It was created by Martin Abadi and Andrew Gordon as an expansion of the pi calculus intended to focus on cryptographic protocols, and adds features such as the encryption and decryption of messages using keys. The Coq proof system is an interactive theorem prover that allows for the definition of types and functions, and provides means by which to prove properties about them. The spi calculus will be implemented in Coq and subsequently used to model and prove properties of cryptographic protocols. This entails the implementation of both the syntax and the semantics of the calculus, as well as the rules and axioms used to manipulate the syntax in proofs.

Fazle Tanjil, MSc Computer Science

Deep Learning Concepts for Evolutionary Art

Evolutionary art is an area that involves the use of computational intelligence to generate aesthetically pleasing images. One of the major challenges of generating creative images is how to guide the evolutionary process so that it can produce creative images that conform to specific image characteristics found in given target images. Previously, uses of target objects were used low-level pixel information. However, the recent breakthrough in deep learning field resolves that problem. Deep learning uses artificial neural networks which have several hidden layers. A deep neural network may be trained with millions of images. It becomes an image classifier and learns to extract a high-level content in generic feature representations of those images. It also maintains a level of invariance so that distortions in low-level pixels in those images do not affect the high-level semantic information of the images. Our goal is to develop a creative evolutionary system which incorporates a trained deep neural network. We will use the high-level image content information formed by the networks as a guide to our evolutionary process. This will help the system generate
images that conform to specific image characteristics found in a given target image.

Pranab Kumar Ghosh, MSc Computer Science  
*Modal and Relevance Logics for Qualitative Spatial Reasoning*

The theoretical aspect of this thesis is to use classical propositional logic with non-classical relevance logic to obtain a logic capable of reasoning about Boolean algebras i.e., the mereological aspect of Qualitative Spatial Reasoning (QSR). Then, we extended the logic further by adding modal logic operators in order to reason about topological contact i.e., the topological aspect of QSR. Thus, we name this logic as Modal Relevance Logic (MRL). We have provided a natural deduction system for this logic by defining inference rules for the operators and constants used in our (MRL) logic and shown that our system is correct. Furthermore, we have used the functional programming language and interactive theorem prover Coq to implement the definitions and natural deduction rules and proven that our defined axioms in the theoretical part are valid. At the end, our target is to give an example of QSR in the context of designing an apartment by showing that a certain specification of an apartment is actually satisfiable, i.e., that there is a concrete layout that satisfies the specification.

Jay Douglas, MSc Computer Science  
*Merging and Decomposition Variants of Cooperative Particle Swarm Optimization*

Many optimization algorithms suffer under the curse of dimensionality - a problem that describes a decrease in performance as the number of problem variables increases. Particle swarm optimization (PSO) is no exception to this performance degradation. Cooperative methods have since been introduced for PSO in order to increase its effectiveness for high dimensional problems by following a divide and conquer approach to large dimensional problems. Performance still suffers for such cooperative PSO (CPSO) variants, mostly due to the dependencies among variables. To solve these problems, two new variants of CPSO are proposed, namely decomposition and merging cooperative swarm optimization, referred to as DCPSO and MCPSO respectively. The goal of these variants will be to improve performance for large scale problems with variable dependencies.

Tyler Collins, MSc Computer Science  
*A Modern Multi-Objective Approach to the Disease Gene Association Problem*

The Disease Gene Association Problem (DGAP) is a Bioinformatics problem in which search strategies inspired by Computer Science take Biological data and attempt to efficiently and accurately provide as best a solution as possible. Specifically, the DGAP seeks to find and rank various genes based on their involvement in the presentation of a given disease. Previous works have demonstrated the effectiveness of both Artificial Intelligence (AI) and Monte Carlo techniques. These techniques typically improve by picking one of the following avenues: improving the accuracy of ranking measures, incorporating multiple biological evidence types, or trying to build multi-objective AI systems. Thus, a new framework which hopes to combine all three avenues is presented. The technique hopes to take modern relational ranking measures (centrality measures), use all of the Biological data available, and be a multi-objective AI system. Successful preliminary results on the Breast Cancer disease will be discussed.

Alison Feist, MS Sustainability  
*Dissecting collaborative environmental processes: examining qualities, interactions, and outcomes*

Collaboration is proposed as a means to overcome limitations of past government led approaches in environmental and natural resource management and governance, as well as a way to improve the process and its outcomes (Plummer et al., 2017; Armitage et al., 2009; Holling & Meffe, 1996). The research aims to understand how qualities, or key characteristics of collaboration (e.g. trust, social learning, shared understanding) interact to influence outcomes. The first stage of this study involved conducting a systematic mapping review to unpack the process of multiparty environmental collaboration in the scholarly literature in terms of qualities, interactions between qualities, and their relationship to outcomes. Results from this systematic mapping review will be presented, along with how they informed the second stage of the research (in progress), which entails the examination of three case studies of climate change adaptation collaboratives in New Brunswick. Questionnaires and key informant interviews of the individuals involved in these collaboratives will provide important insights into comparing what is known in the literature to empirical settings. The research thus contributes both conceptually and empirically to the scholarly literature by addressing
gaps of understanding in collaborative environmental processes. It also has the potential to contribute to policy and practice, to aid in determining how collaborative strategies in the environmental domain can be more effective.

**Yuka Kataoka, MS Sustainability**

*Water resilience measurement in Remedial Action Plan*

Water resources problems such as water quality and use of water are increasingly complex and concerning. Accordingly, new approaches in water governance are necessary to pursue sustainability. The concept of water resilience, the capacity of a system to maintain the integrity of its function despite the presence of disturbances, is one that has been proposed to realize sustainability. The purpose of the study is to identify and measure water resilience in the context of Remedial Action Plan (RAP) over time to understand how and to what extent resilience has been incorporated into the plan. The RAP is a cleanup plan assigned by the Canada-U.S. Great Lakes Water Quality Agreement for 43 areas around the Great Lakes basin where environmental degradation became a major concern. The study aims to establish an approach for water resilience measurement and implement it in a real-world context. Nine resilience principles determined by literature form the foundation for identifying measurable social and ecological indicators of water resilience in the Plan. Proposed methods are content analysis and semi-structured interviews of stakeholders. This research will contribute to the resilience measurement literature and reveal the extent to which resilience principles are evident in one example of Canadian water governance.

**Brent Thorne, MSc Earth Science**

*Influences of catchment land cover characteristics on hydrological change in lake-rich Arctic permafrost regions.*

It is unclear how warming ground conditions and shrub vegetation proliferation are affecting the hydrology of important northern lake-rich permafrost environments. Our research investigates these relationships in Old Crow Flats, Yukon, a lake-rich Arctic landscape widely regarded for its cultural and ecological integrity. We use a combination of remote-sensing, in-situ soil moisture and active layer thickness (ALT) probe measurements, and vegetation sampling to investigate ground cover characteristics among six plots spanning various land cover types. Preliminary results show high late thaw-season variability in ALT among tundra/bog (mean = 25.95 cm), shrub/spruce (mean = 35.79 cm), and burned (mean = 49.57 cm) sites. Soil moisture in-situ volumetric water content measurements, with 20 cm probe depth, show similar late-thaw season variability among tundra/bog (mean = 58.77%), shrub/spruce (mean = 43.44%), and burned (mean = 47.55%). Ongoing analysis will incorporate use of unmanned aviation vehicle high-resolution aerial photography and additional remote-sensing products (acquired as part of NASA's Arctic-Boreal Vulnerability Experiment airborne campaign) to refine maps of lake and river catchments that have been monitored in collaboration with Parks Canada since 2007. Integrated approaches being developed here will enhance our knowledge of the complex relations affecting lake-rich permafrost landscapes as climate continues to change.

**Dana Harris, MS Sustainability**

*Identifying xylogenesis and growth responses to weather in Pinus banksiana in a Northern Context*

The climate of northern regions of Canada are changing at a rapid pace. Due to the lack of long-term historical climate data, natural climate variability in these regions are not fully understood. Dendrochronology (tree ring analysis) is one tool used to extend records. This research seeks to identify environmental factors influencing cambial activity and xylogenesis (cellular development) of jack pine (Pinus banksiana) in the Yellowknife, NT to better refine future northern dendrochronological research. A multiproxy approach was used to identify weather controls on tree growth, analyzing cellular development (microcores) and a continuous record of stem radial displacement (dendrometers) throughout the 2017 growing season. Weekly microcores (small punches from the tree stem) were extracted from 13 trees, producing a chronology of cell production. Results from microcore cell counts identified cambial development beginning late April - early May 2017. First mature cells were identified during June 2017, followed by a period of rapid cell production throughout the month of July (~3 cells/week). In addition, automatic point dendrometer sensors installed on each tree created a continuous record of stem swelling in response to weather. Stem swelling patterns further identified growth dynamics of jack pine in a northern context.

**Emmanuel Akowuah, MA Geography**

*Farmers Access to Agricultural Information and its Impact on Smallholder Agriculture: A Case Study of the Asante Akim North Municipality, Ghana*

In an era where there has been a spate of renewed interest in Information and Communication Technologies (ICT's) for
development, agriculture, like other businesses, becomes increasingly dependent on modern technologies. Although several factors account for innovation adoption, the role of information has not been a priority for some governments and non-governmental organizations. As a solution to some of the perceived failures of proper information delivery, governments, private and international organizations have promoted agricultural research and, at the same time, resorted to agricultural extension services, generally perceived as the delivery of information inputs to farmers. This study examined the relationship between information access, agricultural productivity and livelihood outcomes in two villages of the Asante Akim North Municipality of Ghana, namely Akutuase and Wioso. The study adopted a qualitative methodology as the dominant approach, complemented by some document analysis. Semi-structured interviews were used to collect data from respondents. The key findings showed that farmers are aware of their information needs, but such needs have been redefined and dictated over time by extension officers. The findings established that farmers in the interviewed communities experienced improved farming practices, productivity and livelihood outcomes with improved access and use of information from extension officers. The study concludes that while access to appropriate information is necessary to improve agricultural productivity and farmers’ livelihood outcomes, it is not in itself sufficient, as some institutional and socio-economic factors may impact the information seeking behavior of farmers and influence output and livelihood outcomes of farmers.

Rick Castle, MA Classics
The Positioned Parasite: Philip in Xenophon’s Symposium

Xenophon’s Symposium introduces a group of symposiasts and among them, the uninvited Philip proves himself to be a parasite at the symposium by his dialogue and behaviour. The Classical symposium was limited to citizen males, and although Philip does not precisely suit the conventional atmosphere of the institution (Corner 2013: 56), Xenophon has deliberately chosen to include the character of the parasite to reinforce ideals of class separation (Fehr 1990: 185). A passage (1.8-9) associates the young Autolycus with crucial symposiastic qualities: self-control and modesty. These traits reinforce what his athletic victory communicates: he is a model elite. Thus, he is the object of the symposiasts’ pederastic affection. Xenophon highlights Autolycus’ pederastic suitability prior to Philip’s entrance (1.11). For Xenophon, Autolycus is suitable only for those male citizens present. Philip interacts with other symposiasts, and each conversation further constructs the parasite while revealing the author’s biases towards parasite-figures that existed in Classical Athens (Corner 2013: 43). Thus, interactions between Philip and other attendees reflect the societal values and perspectives of elite males in Xenophon’s era. The parasite’s place in society is defined by the symposiasts’ response to Philip’s comportment, by which he casts himself as both literal free citizen and figurative slave. Works Cited Corner, S. 2013. “The Politics of the Parasite (Part One).” Phoenix 67: 43-80. Fehr, B. 1990. “Entertainers at the Symposion: The Akletoi in the Archaic Period.” In Sympotica: A Symposium on the Symposion, edited by O. Murray, 185-95. Oxford: Oxford University Press.

Skylar Kovacs, MA English
“It was their idea of tragedy, not his”: Biopolitical Modernity and Representations of Trauma in Virginia Woolf’s Mrs Dalloway

This presentation will address the portrayal of the effects of trauma in the 1925 novel Mrs Dalloway by Modernist author Virginia Woolf, with the text’s representation of medical practitioners serving as the central focus of my study. Through formal literary analysis, accompanied by the application of current theoretical perspectives on trauma and biopolitics, I consider the ways in which Woolf conceptualizes the mind in distress and under medical examination, interrogating what such depictions may illumine about the historical, aesthetic, and sociopolitical dimensions of her novel. In doing so, I discuss the text’s depiction of health and illness as a conduit for critiquing the “body” and health of a nation ubiquitously afflicted by traumatic conditions. Because Mrs Dalloway explores the individual and cultural effects of the First World War on both its combatants and its civilian witnesses, I also respond to recent scholarship in Modernist studies concerned with literary depictions of trauma and mental illness in the decades after the war. This analysis will culminate in a discussion of the greater sociopolitical concerns traced in Mrs. Dalloway, which I suggest are demonstrative of Woolf’s critical tone towards government-sanctioned medical practices.

Amy Barlow, MA Studies in Comparative Literatures and Arts
Fracturing Representations of Fear in the French Banlieue

Muslim inhabitants of the French banlieue are often ostracized by mainstream French society. This paper aims to
investigate how the marginalization of the Muslim subject living in the French banlieue has contributed to a fractured sense of identity amongst this minority group. The use of fear politics, practiced by neoliberal governments (Ramadan and Shantz 2016) targets specific communities both as objects of fear and as threats to society. Furthermore, Hall’s ‘systems of representation’ (2013) states that visual images, language and discourse can work to marginalize the ‘other’, in the case of this paper, the Muslim inhabitant of the banlieue. By applying Hall’s ‘system of representation’ as well as considering ‘politics of fear’ (Ramadan 2016), I aim to show how mainstream French society has and continues to work to exclude the Muslim banlieue resident. Both theories drive toward negatively affecting those living in the banlieue and leads to their “othering” which contributes to a fractured sense of identity. This social exclusion pushes some of this marginalized group from the banlieue toward either the stereotype portrayed by mainstream French society or other forms of revolt both of which work to affect their sense of identity.

Brookelnn Cooper, MA History
Identifying the Anonymous Printer of Menno Simon’s “The Blasphemy of Jan van Leiden” (1627): A Typographical Analysis.

Influential Anabaptist religious leader, Menno Simons’ The Blasphemy of Jan van Leiden (1627) - believed to be originally written sometime between the years 1534 and 1540 - outlines his views on the errors of the Münsterites (a radical sect who sought to establish a theocracy via violent means). This text separates Simons from the Münsterites and saves his once damaged reputation. However, the oldest surviving copy was anonymously printed in 1627. This has raised many questions in past and recent scholarship over the authenticity of the text. Since May 2017, I have been conducting research in Amsterdam, using typographical analysis to identify the anonymous printer and determine when and why The Blasphemy was written. As Historian Richard Sayce states, “[t]he detection of pirated editions, the determination of the order of editions, the study of clandestine publications, of the work of heterodox authors, and of the movement of ideas all depend on knowing when and where books were printed.” Determining the answer to these questions will also contribute to the discussions on the world of printers, publishers, and booksellers in early-modern Europe.

Tyler Adair, MA Studies in Comparative Literatures and Arts
The Children of Marx and Coca-Cola: (Re)politicizing Contemporary Film Narratives of May 1968

This paper seeks to explore the ways in which contemporary French narrative films have contributed to the social and political discourses surrounding the May 1968 protests in France. As Kristin Ross (2002) observes, the events of May 1968 have been “overtaken by [their] subsequent representations” and the proliferation of competing narratives has facilitated a forgetting which has undermined the political significance of the events and obscured their collective, emancipatory goals (pp. 1-7). While some attention has been paid to films produced immediately in the wake of the events, comparatively little attention has been paid to contemporary films which have reconstructed the events from a position of historical distance and rendered them as largely individualized (and thoroughly depoliticized narratives of aesthetic and sexual liberation framed largely from within bourgeois spaces. Focusing specifically on the most notorious (in terms of its content) and arguably the most mainstream, Bernardo Bertolucci’s The Dreamers (2004), I will argue that the film largely obscures the actual political goals of May 1968 and contributes to what Ross calls the ‘teleology of the present’ in modern May 1968 narratives which suggest that the film’s depoliticized narrative of sexual liberation “represents the accomplishment of [May’s] deepest desires” (pp. 6-7). References: Ross, K. (2002). May ’68 and Its Afterlives. Chicago, IL: University of Chicago Press.

Jane McClure, MA Child and Youth Studies
The Effect of ADHD Subtype Symptoms on Academic Achievement

Between 25-40% of children with either an attention or reading disorder meet criteria for both. Comorbid ADHD and math disabilities are less studied, but prevalent enough to warrant interest. The current study sought to examine whether the previously established reading-attention relationship is unique to reading, or extends to other domains during the earliest stages of formal skill acquisition. Grade one children in a five-year longitudinal study, were tested for reading and math ability using the Woodcock-Johnson Test. Parents completed the SWAN rating scale, which includes items for attention, hyperactivity, and oppositional behaviour. Children with higher ratings of inattention-subtype symptoms on the SWAN rating scale have more difficulty with reading. This relationship was in the same direction and somewhat stronger between inattention and math tasks. Hyperactive-subtype symptoms and Oppositional...
Defiant symptoms were not found to be correlated with any math or reading skills. These results suggest attention increases the risk of academic difficulties more broadly than just reading. Children with attention difficulties may require more support from teachers if they present with Inattentive-subtype symptoms. Results also suggest future work should disentangle the achievement-inattention relationship, probing unique versus shared deficits introduced by the presence of inattention.

Joseph Robertson, MA Applied Disabilities Studies

An Evaluation of a Telecommunication Model for Training Staff to Implement Evidence-Based Procedures with Children with Autism Spectrum Disorder

The advancement of technology has increased the accessibility of evidence-based procedures across various fields (e.g., medicine, psychology, and education). Telecommunication models (TCMs) have some support for increasing the accessibility of effective behavioural services for children diagnosed with autism spectrum disorder (ASD). Behavioural skills training (BST) is an evidence-based training procedure that has been employed through TCM, to teach behavioural procedures to those supporting children with ASD. However, further evaluation of whether improved staff performance can be transferred to new settings and skills is needed. The current research is examining the efficacy of TCM-BST for training staff who work with children with ASD to accurately perform evidence-based intervention procedures. In a multiple-baseline design across five participants we are measuring staff accuracy implementing a target intervention procedure (e.g., performing a preference assessment) and a similar untrained target procedure (e.g., prompting strategies), as well as child outcomes. Examining the effects of TCM-BST is important as positive outcomes could provide further evidence for telecommunication as a feasible and effective training modality for staff supporting children with ASD. Preliminary data will be presented, and clinical implications will be discussed. Contributors: Joseph Robertson, Kendra Thomson, and Samantha Herberman.

Rebecca Ensor, MA Applied Disability Studies

Pairing: Staff Training and its Relation to Treatment Outcomes for Children with Autism Spectrum Disorder

Increased therapeutic alliance (i.e., the relationship between a therapist and client) has shown positive effects on treatment outcomes in neurotypically developing children. In therapy for children with autism spectrum disorder, pairing is a strategy used to enhance the therapeutic bond (i.e., a component of therapeutic alliance). To date, relatively little research has focused on defining pairing skills, training staff using evidence-based methods, or examining the relation between alliance and therapeutic outcomes. The purpose of this study is to measure the effectiveness of a pairing skills training package for new therapists and measure its relation to child behaviour and behavioural treatment outcomes (i.e., approach behaviour, affect, skill acquisition, and challenging behaviour). The following research questions will be addressed: (1) Is an evidence-based training model effective in training staff on pre-session pairing skills? (2) Is the implementation of these pairing skills related to the bond between a therapist and their client? (3) Is the implementation of pairing skills and increased bond related to skill acquisition and changes in challenging behavior? In this talk, study results and their implications will be discussed.

Camille Xinmei Rousseau, MA Child and Youth Studies

Turning the page for Spot: Dogs as potential motivational reading buddies for young children

Introduction: Canine-assisted reading programs for young readers are thought to help children overcome the struggles often associated with reading and to increase children’s reading motivation by providing a non-judgmental and positive reading context (Hall, Gee, & Mills, 2016). This study adopted a within-subjects design to explore if the context of reading to a dog versus reading alone is associated with increases in children’s reading motivation and persistence in the context of a challenging reading passage. Method: Reading motivation and persistence were explored among 17 (8 girls; 9 boys) children in grades one to three. Reading outcomes were assessed both in the presence of a therapy dog and alone without a therapy dog present. Children completed standardized reading assessments, took part in structured interviews, and were timed in both reading sessions. Findings: Results of a repeated-measures MANOVA revealed that there was a significant difference between groups on interest, competence, and persistence in reading, F(3, 14) = 3.89, p = .03, η2 = .45. Univariate tests also indicated there was a group effect on individual interest, F(1, 16) = 5.15, p = .04, η2 = .24, competence, F(1, 16) = 6.43, p = .02, η2 = .29 and persistence F(1, 16) = 10.88, p = .005, η2 = .41. These preliminary results (analyses are ongoing) suggest that the presence of a dog has a positive impact on children’s reading motivation and persistence in the context of reading a challenging passage. Implications for canine-assisted literacy programs and struggling readers are discussed.
**Adam Carter, MA Applied Disability Studies**  
*Displacement of Leisure Stimuli by Edible Stimuli: A Systematic Replication*

A preference assessment is a tool used to systematically identify putative reinforcers for individuals (Hagopian, Long, & Rush, 2004). Previous researchers have evaluated the extent to which edible stimuli displace leisure stimuli when both stimulus classes are combined in one preference assessment (Andakyan, Fryling, & Benjamin, 2016; Bojak & Carr, 1999; DeLeon, Iwata, & Roscoe, 1997; Fahmie, Iwata, & Jann, 2015). Some researchers have found that edible stimuli displaced leisure stimuli for a majority of participants (Bojak & Carr, 1999; DeLeon et al., 1997; Fahmie et al., 2015), while others have found mixed results (Andakyan et al., 2016). In addition, these studies have been restricted to relatively small numbers of individuals with intellectual disabilities (Bojak & Carr, 1999; DeLeon et al., 1997; Fahmie et al., 2015) and individuals with autism spectrum disorder (Andakyan et al., 2016; Fahmie et al., 2015). The purpose of the current study is to systematically replicate and extend this research to determine whether the displacement of leisure stimuli by edible stimuli exists among a larger number of children with autism spectrum disorder and typically developing children. To validate these preference assessment results, we conducted a reinforcer assessment with a subset of participants to determine the reinforcer potency of the highest ranked edible and leisure stimuli. Data collection is currently ongoing.

**Katie Schiralli, MA Child and Youth Studies**  
*A cross-cultural examination of the relationship between personality and bullying behaviours*

Bullying is a ubiquitous and dangerous issue that involves between 100 and 600 million adolescents directly worldwide each year. Research using the HEXACO Model of Personality - an evolutionarily and cross-culturally informed measure of personality - has suggested that the personality factor Honesty-Humility (i.e., an index of predatory and exploitative tendencies) is associated with bullying behaviour in Western and culturally individualistic samples. The purpose of the current study was to explore whether these findings could be replicated in a sample of participants from a collectivist culture by comparing data from 350 Canadian adolescents and 440 Chinese adolescents. Participants completed the HEXACO-PR-I personality inventory and a bullying questionnaire. A hierarchical linear regression was conducted to examine whether Honesty-Humility would be a strong predictor of bullying behaviour among adolescents in both cultures. Results confirmed that Honesty-Humility, as well as Conscientiousness, were significantly, negatively related to bullying behaviour. Further moderation analyses revealed that a significant, negative relationship is present between Honesty-Humility and bullying when Conscientiousness is at low or moderate levels, but not at high levels, across both samples. These results suggest a cross-cultural personality profile of bullies as both exploitative and impulsive.

**Natalie Spadafora, PhD Child & Youth Studies**  
*Exploring the Link Between Incivility and Bullying*

At a conceptual level, there appears to be some evidence to suggest a link between incivility and bullying (i.e., Marini, 2009). While incivility and bullying appear to be antisocial behaviours that operate at different levels of intensity and intentionality, Marini (2007) has suggested that these concepts may have similar antisocial roots. The sample of the present study comprised 395 adolescents who completed self-report questionnaires. Measures of temperament, incivility and bullying were of interest for this study. Previous research has found links between temperament and bullying (i.e. Marini, Dane & Kennedy, 2010) as well as between temperament and incivility (Spadafora, et al., 2016). Therefore, we tested for direct and indirect effects from four factors of temperament to both incivility and bullying. Through the use of structural equation modeling techniques, we found significant direct effects from surgency and effortful control to incivility and from surgency, negative affect and incivility to bullying. There were significant indirect effects from surgency to bullying and from effortful control to bullying through incivility. Findings will be discussed with a focus of prevention, and ensuring that teachers, coaches etc. are able to properly deal with incivility, with the goal of stopping these actions before they escalate further.

**Deanna Buchmayer, MSc Applied Health Sciences**  
*Fitspiration photos and quotes: Effects on body image in university women?*

Fitspiration is a relatively new form of social media used to inspire individuals to adapt to a healthier lifestyle through promotion of exercise and healthy living. Fitspiration messages, which can include photos and/or slogans and quotes, are designed to have a positive effect on exercise behaviour, and research has shown that Fitspiration does increase
inspiration to get involved in fitness and healthy eating. However, it has also been shown to lead to more negative body image, with viewing Fitspiration messages resulting in higher body dissatisfaction, negative mood, and lower self-compassion. More recently, one study showed that self-compassion quotes used with Fitspiration images, could reduce these negative effects. Thus, both images and quotes seem to be important. The purpose of this study is to investigate which component of Fitspiration messages (images or quotes) causes a negative effect on body image. University women will be randomly assigned to view one of three sets of fitspiration messages: Fitspiration quotes only, Fitspiration photos only, or a combination of the two. They will complete pre- and post-measures of body image, including body dissatisfaction, self-objectification, and body appreciation, to examine which aspect of these messages may be the most detrimental to body image.

David Brown, MSc Applied Health Sciences

Examining Physiological and Psychological Responses to Social Evaluative Body Threat Conditions in University Male Varsity Athletes and Non-Exercisers

When the social self is threatened (social evaluation), psychological and physiological reactions, such as increases in shame and cortisol, occur. The present study will examine responses to body-related social evaluative threats in 50 male varsity athletes from non-aesthetic sports and 50 non-exercisers, to determine if athlete status moderates psychobiological responses. Participants will be randomized into a high or low body threat condition, stratified by athlete status. In the high threat condition, a male confederate who meets Western society’s body ideal, will have his anthropometric measure-ments taken by an attractive female confederate while shirtless and in front of the participant and three researchers in a mirrored facility. The participants will undergo the same anthropometric measurements under the same conditions while under the impression they are being videotaped. In the low threat condition, participants will undergo the same anthropometric measures with their shirts on, no confederates present, and only two researchers present. Questionnaires assessing state body shame and saliva samples to assess cortisol and inflammatory markers will be taken across the session. This research will identify those at greater risk for negative responses to these threats and information may also be used to eventually develop interventions for men suffering from body image concerns.

Hannah Rose, MSc Applied Health Sciences

Where’s The Body In Embodiment?

There is a need to better understand the subjective experiences of women participating in what is considered to be (and promoted as) an embodying activity. Embodying activities are those expressing competence, interpersonal relatedness, power, self-expression, and well-being through physicality. Embodiment experiences are thought to be higher in women who regularly participate in physical activities that actively promote a mind-body integration, such as yoga. The Hindu philosophy of yoga is based on the eight limbs of Ashtanga yoga, however, Western beliefs and modernization of the ancient practice of yoga only encompass two limbs of the practice. Partial acceptance of the practice could potentially create altered embodiment experiences in that aspects that oppose self-objectification, such as self-realization and individual observation, are not promoted as frequently without the other six limbs of yoga. Thus, the occurrence of self-objectification while practicing yoga may undermine the concepts of embodiment and mindfulness, which are central in the principles of traditional yoga. This study will explore the experiences of women practicing yoga in North America using a case study methodology. Specifically, the case will be bound by the commercial yoga studio Moksha Yoga, focusing on their Moksha Flow classes.

Alana Wong, Biochemistry

The effects of SRC on plant growth and silica content in cover crops and grapes

Recent issues surrounding agriculture sustainability and climate change have discouraged the use of synthetic (chemical) fertilizers due to their negative effects on the environment. Although synthetic fertilizers are commonly known to improve plant growth, recent interest has shifted towards alternative soil amendments due to their more benign environmental impacts. In this study, the effects of Spanish River Carbonatite (SRC) natural agromineral fertilizers on plant growth and silica levels in various plant species were studied in comparison to a nitrogen, phosphorus, and potassium synthetic fertilizer (NPK). The experiment was carried out in three settings: 1) a controlled greenhouse, 2) semi-controlled garden, and 3) operational vineyard, each with three treatments: 1) SRC, 2) NPK, and 3) no amendment. Plant combinations included alfalfa, radish, chicory and red clover grown individually and together,
as well as individual ryegrass. Root and shoot fresh weight, dry weight, and moisture content were measured for all samples. In addition, silica levels were measured for greenhouse plants and vineyard grape leaves, and percent herbivory was estimated for all garden plants. Greenhouse results showed that alfalfa and red clover grew largest with SRC, while chicory, radish, and rye grew largest with NPK. Some trends also demonstrated that the presence of SRC and NPK soil amendments increased silica levels in alfalfa, red clover, chicory, and radish. In the gardens and the vineyard, very few significant differences were observed. Overall, the addition of NPK and SRC both had benefits for plant growth, and the use of both in combination should be investigated.

Zach Cronkwright, Physics  
Effects of Current Oscillation on the Production of Porous Silicon

Long wave pass filters (LWPF’s) are optical filters that are used in a wide variety of devices to eliminate unwanted radiation beyond the IR regime. The typical LWPF consists of a layer of refractive particles covering an IR transparent substrate. When IR light is incident on the LWPF the particles scatter wavelengths of light shorter than the size of the particles. It has been shown that porous silicon structure also exhibits this behaviour. In this type of LWPF, pores etched into the silicon surface act as the scattering sites. The cut-off wavelength is related to the topological properties of the porous surface; in particular the pore density and pore-to-pore spacing. It has also been found that under the same etching conditions the cut-off is sharper when the current is oscillated between a high and low value than when it is constant. We have monitored the pore structure, via scanning electron microscopy (SEM), and infrared transmission of samples produced with constant and oscillating current in small time steps. The evolution of the cut-off wavelength with the topological properties determined from the SEM images using the image-analysis program ImageJ will be reported.

Jeremy Dion, Physics  
Properties and Synthesis of Copper Doped As2Te3

The Chalcogenide family of semiconductors are materials that contain a chalcogen element (S, Se or Te) and are important for applications due to their sensitive response to light, electrical current and heat. Recently a subgroup with the tetradymite crystal structure have been found to exhibit exotic electronic states including superconductivity upon doping. These materials, which are bulk insulators, have metallic surface states and are called topological insulators. Arsenic Telluride is a chalcogenide that exhibits multiple structural phases. The beta-phase is obtained by rapid quenching from a melt, and is isostructural with the topological insulator Bi2Te3. Upon doping with Copper Bi2Te3 becomes superconducting. Theoretical work has predicted that beta-As2Te3 may also have topological insulating states. To explore possible exotic electronic states in this material we have synthesized Cu-doped samples of the beta-phase of As2Te3 and investigated their properties by Xray Diffraction and Infrared Spectroscopy.

Alicia Martin, Physics  
A Monte Carlo Model of the ELEKTA Agility Radiation Therapy Treatment Head

At the Walker Family Cancer Centre in St. Catharines, three linear accelerators (linacs) are used to deliver high doses of radiation to shrink tumors and kill cancer cells. Computer simulations of such linacs are used to simulate conditions and conduct experiments otherwise not achievable because of the high volume of patients that they treat, and the need to maintain the linacs within certain standards. Different cancer centers have their specific linacs tuned differently, and therefore Monte Carlo computer models must be made for each linac installation. We present the first Monte Carlo model of the linacs currently in use at the Walker Family Cancer Centre. The highly detailed model uses the open-source simulation platform GATE, which incorporates the particle tracking physics engine Geant4. Our simulation of the dose distribution of the 6 MV energy beam currently matches experimental results with over 90% of the data passing the gamma test at 3% and 3mm. The simulation is currently being extended to the 10 and 18 MV beams.

Falak Shoaib, Biomedical Science  
Skeletal Muscle Characterization of an Acute TazKD Mouse Model

Skeletal muscle is a highly dynamic and energy dependent tissue. In order to function optimally, it needs energy in the form of ATP. Mitochondria are specific organelles inside cells that are responsible for the majority of ATP production. An important glycerophospholipid is cardiolipin (CL), which is found in the inner mitochondrial membrane and facilitates several cellular processes, including ATP production. Tafazzin (Taz) is the major enzyme responsible for transforming
monolyso-CL (MLCL) into the biologically relevant tetralinoleoyl-CL (TLCL). Alterations in Taz protein function have been shown to affect CL quality and quantity. This results in impaired mitochondrial and skeletal muscle function. In this project, the physiological role of Taz is explored using a doxycycline-inducible knockdown mouse model (TazKD). Classically, this model has been used as a model for Barth syndrome - a rare genetic disorder characterized by an enlarged heart, skeletal muscle weakness, and a reduction in white blood cells - where Taz is knocked down chronically (lifelong), resulting in the characteristic pathologies of cardiac and skeletal muscle myopathies seen in Barth syndrome patients. I will take a novel approach and acutely (5-6 weeks) suppress Taz protein expression to examine its effects on skeletal muscle in the absence of pathology. With this approach, we will quantify Taz protein expression, MLCL and TLCL quality and quantity, and skeletal muscle histology and contractile function. These results will help us to further elucidate the role of Taz on CL and mitochondrial function in skeletal muscle.

Kailey Meehan, MSc Biotechnology

A Robust Time Resolved Assay for the Activity of a Lipid Kinase

Enzymes are proteins that speed up chemical reactions. Multiple methods have been developed to investigate the speed at which enzymes work. These methods have several shortcomings; therefore, our goal is to develop a new assay (methodology) to measure the speed of a class of enzymes called lipid kinases. Lipid kinases react with a component in the cell membrane, so the assay will have this component in an environment that mimics a cell membrane. This is one of the features that distinguish this assay from those in literature, another feature is time resolution. The assays in literature only measure how much "work" the enzyme has done after a period of time, and do not measure how fast it was working during that time. A time resolved assay allows for the speed of the enzyme to be measured continuously in different conditions. This research project is focused on a lipid kinase called Pik1. It is proposed that another protein called Sec14 helps Pik1 do its job more efficiently. The assay will be used with and without Sec14 to figure out if Sec14 helps Pik1. This assay may be used to investigate the connection between lipid kinase activity and bipolar, diabetes, and cancer.

Ioannis Vlachogiannis, PhD Applied Health Sciences

Increased skeletal muscle cell glucose uptake by carnosol is via AMPK-dependent GLUT 4 glucose transporter translocation

Skeletal muscle is a major insulin target tissue and important in glucose homeostasis. Insulin action in muscle activates the phosphatidylinositol-3 kinase (PI3K)/Akt signaling causing the translocation of intracellularly stored GLUT4 glucose transporters to the plasma membrane and increasing glucose uptake. Impaired insulin action in muscle leads to insulin resistance and type 2 diabetes mellitus. Activation of the energy sensor AMP-activated kinase (AMPK) increases muscle glucose uptake. Rosemary extract (RE) increases muscle glucose uptake and AMPK activity but the components responsible for these effects are not known. In the current study, we investigated the effect of carnosol, an RE polyphenol. Carnosol stimulated glucose uptake in L6 myotubes in a dose- and time-dependent manner. Carnosol did not affect Akt phosphorylation while it significantly increased AMPK phosphorylation. Furthermore, the carnosol-stimulated glucose uptake was significantly reduced by the AMPK inhibitor compound C (CC) while it was not affected by the PI3K inhibitor wortmannin. Carnosol increased plasma membrane GLUT4 levels in GLUT4myc overexpressing L6 cells and this response was abolished by the AMPK inhibitor CC. Our study is the first to show a significant increase in muscle glucose uptake by carnosol via a mechanism that involves AMPK.

Hesham Shamshoum, MSc Applied Health Sciences

Attenuation of Muscle Cell Insulin Resistance by Rosemary Extract

Skeletal muscle accounts for ~80% of postprandial glucose disposal and is a major target tissue of insulin. Insulin increases muscle glucose uptake by translocating intracellularly stored GLUT4 glucose transporters to the plasma membrane through the phosphatidylinositol-3 kinase (PI3K)/Akt signaling pathway. Impaired PI3K/Akt signaling and increased serine phosphorylation of insulin receptor substrate-1 (IRS-1) are associated with insulin resistance (IR) in skeletal muscle. Rosemary extract (RE) contains many polyphenols, has been shown to counteract IR but the mechanisms involved are not known. Therefore, the aim of this study was to investigate the effects of RE on high glucose (HG)/high insulin (HI)-induced skeletal muscle IR and the molecular mechanisms involved. Glucose uptake was assessed using [3 H]-2-deoxy-D-glucose. Total and phosphorylated levels of Akt and IRS-1 were measured by
immunoblotting. Exposure of L6 myotubes to HG/HI for 24 h abolished the acute insulin-stimulated glucose uptake (I: 180±10.43, HG/HI + I: 108 % of basal), attenuated the insulin-stimulated Akt phosphorylation, and increased IRS-1 Ser 636/639 phosphorylation and all these responses indicate IR. Importantly, treatment with RE (0.005 mg/ml, 24 h) significantly restored the insulin-stimulated glucose uptake (HG/HI + RE + I: 184%). Our data indicate a potential of RE to counteract muscle IR.

Michael Yousef, MSc Applied Health Sciences

*Inhibition of allergic inflammation by rosemary extract: effects on mast cell signaling pathways*

The prevalence of allergic inflammatory disorders is increasing at an alarming rate, especially in developed nations, with up to 40-50% of school-aged children suffering today. Mast cells are immune sentinels and a driving force in both normal and pathological contexts of inflammation. Allergen detection by the immune system results in the activation of mast cells, leading to an early phase response characterized by degranulation, and release of newly synthesized pro-inflammatory mediators, contributing to a late phase response. Many of the same pathways which have been shown to be drivers of mast cell-mediated inflammation have been affected by rosemary extract (RE) in other cellular contexts. The aim of this study was to evaluate RE in modulating mast cell activation via these pathways toward understanding the mechanism of action and functional outcomes. To model initiation of an allergic reaction, mast cells were sensitized, stimulated with allergen, while being treated with 0 - 25 μg/mL RE. Mast cell activation was assessed by β-hexosaminidase release assay to measure degranulation as well as quantitative polymerase chain reaction, enzyme-linked immunesorbent assay and western blotting to measure the late phase response. We have identified significant inhibition of mast cell activation upon treatment with RE using these methods.

Ali Anwar, MSc Management

*The Personalization-Privacy Paradox in M-commerce: Loyalty Outcomes Explained Through Customers’ Flow Experience and Regulatory Foci*

With the growth of mobile commerce (M-commerce), researchers and practitioners seek to better understand the customer journey, and how to provide a seamless, customized user experience, adapted according to the individual’s preferences. This study addresses the increasingly relevant issue of the personalization-privacy paradox among m-commerce consumers, and explores its effects on the flow experience, which in turn, is expected to lead to greater customer loyalty. Personalization-privacy paradox refers to the trade-off that users have to make between increasing levels of personalized services and the simultaneously increasing privacy concerns. In investigating the paradox, we observe it through the regulatory focus theory, which suggests that individuals are either promotion focus (striving for growth, advancement and focusing on gains), or prevention focus (striving for stability, security, and focusing on avoiding losses). Since marketing literature dictates that consumers react differently to marketing stimuli, we investigate how the regulatory foci of individuals moderate the relationship of personalization and privacy concerns on outcomes like being highly involved (flow experience). Moreover, the regulatory focus also determines the path that individuals follow from flow experience to loyalty. Hypotheses have been formulated to propose these relationships. Details on the data collection process, as well as the methodological approach adopted to test these relationships have been outlined. The research not only holds significant contributions for marketing literature, but also helps managers understand how to provide more personalized, immersive experiences, while adequately addressing consumers’ privacy concerns.

Runqian Liu, MSc Management

*Unpacking the relationship between geographic diversity and performance for international young ventures: mediating role of internal social capital*

An increasing number of young ventures are internationalizing their business early in their life cycles and expanding their scope of international activities into disperse geographic locations. Yet, the performance implication of these phenomena remain to be studied. In my thesis, I aim to analyze the link between geographic diversity and international performance, as well as the mediating mechanism of internal social capital and contingent factors of organization structure. The study synthesize the social capital and exchange perspective with the learning advantage of newness view. The hypotheses are tested with empirical data collected in a survey among 212 international young ventures in China. The results indicate that young ventures with more diverse geographic expansion accrue higher international market performance and return on international investment, and the mediating mechanism of internal social capital
is supported for two of the three dimensions. Furthermore, the indirect effects are moderated by the formalization and centralization of the venture. This study contributes to the theoretical development of the burgeoning field of international entrepreneurship.

Lola Abduvaitova, MSc Management  
*Learning Product Attributes from User-Generated Content for Dynamic Promotion Strategies*

One widely adopted product attribute classification in the literature is the “Search” versus “Experience” dichotomy. Because the costs involved in searching and experiencing products vary across consumers and over a product’s life time, it is important for marketers to understand consumers’ evaluation of these attributes in order to formulate scalable and dynamic promotion strategies. I attempt to address this challenge by proposing a text analytics framework for understanding consumers’ evaluation of product attributes and supporting agile promotion strategies. While prior research attempted to address this challenge via offline questionnaires or analyzing review star ratings, these studies focused mainly on categories of products and required availability of large data. In this thesis, I use textual analysis of user-generated content to identify specific product features that define search or experience attributes to guide promotional strategies. This approach is not only practical to reproduce by marketers, but can be also scalable in today’s digital space. The findings are expected to add to the existing body of knowledge in this area of research as well as inform marketers in devising dynamic and effective promotional strategies that may have significant impacts on sales and profitability.

Zhangwei Lu, MSc Management  
*The influence of derivative usage on firm value*

In contemporary business management, an increasing number of firms began to use derivative instruments to hedge potential financial risks (interest rate risk, foreign exchange rate risk and commodity risk). Hedging is an important part of risk management strategy. In previous research, derivatives usage is considered as a proxy for hedging. Since the financial crisis in 2008, more companies began to realize the important role of risk management, which can lower the volatility of cash flow and financial distress cost. When hedging avoids potential risk and locks future expected profit, firms probably loss the potential profit, raising from fluctuation in price of outstanding rights and obligations. If firms can know the effectiveness of derivative usage during various economic period or in various industries, they can implement better risk management strategy. In this thesis, we investigate non-financial firms in 7 developing countries and set the period of our data from 2007 to 2016. We firstly compare the firm value between hedger user and nonusers by fix effect model. Secondly, in order to relieve self-selection problem, we use propensity score matching and compare the firm value of hedger and non-hedger with similar estimated likelihood of using derivative.

Julianne Burgess, PhD Educational Studies  
*ESL Teacher Emotion Labour: Power, pedagogy and emotions*

Canada’s recent humanitarian campaign to welcome 40,000 displaced Syrians demonstrated an unprecedented level of commitment to refugee resettlement in this country. Schools - the interactions with teachers, peers and curricula - play a significant role in the lives and successful settlement experiences of newcomers. Yet hidden from view is the contested terrain of the language learning classroom, where institutional power and teachers’ professionalism often come into conflict. This presentation will describe an investigation of teacher emotion labour in an English as a Subsequent Language (ESL) setting. Emotion work is produced by the dissonance between workplace rules, including neoliberal accountability-driven curriculum directives, and a teacher’s professional training and ethos of care, especially when working with refugee students who may be suffering from trauma. This autoethnographic study presents a critical examination of emotions in the workplace not as cognitive or biological responses, but as sociocultural phenomena. Does teacher emotion labour lead to compromises in professional practice? Does it affect relationships with vulnerable learners and their educational and settlement experiences? The results of this study may have implications for teachers across other education sectors.
William Ankomah, PhD Educational Studies  
*Critical race theory: Why critical race theory matters in teacher education*

This presentation explores critical race theory (CRT) and examines why it has gained prominence among Black scholars and educators in North America. In this brief theoretical presentation, I look at a brief history, tenets, and benefits of critical race theory in education. CRT focuses on identifying, naming, critiquing, and transforming racial injustices and policies (e.g., color-blind policies, the school-to-prison pipeline, White supremacy, and racism) which disenfranchise racial and ethnic minority groups. Critical race theorists argue that when dealing with conditions of racial and ethnic minorities, historical, socio-cultural, and political accounts must be considered to understand the lived experiences of such groups fully. Also, CRT suggests that there is an ongoing hidden abuse against racial and ethnic minorities which must be disrupted and transformed. Additionally, CRT challenges the notion of color-blindness and positions race and racism at the core of the subordination of racial and ethnic minorities. According to the research literature, CRT in teacher education causes uneasiness among mainstream, White middle and upper-class teacher candidates who haven’t had first-hand experience or knowledge of CRT; but, this presentation argues that it is worth the discomfort if future teachers are to develop a better understanding and offer differentiated support to their culturally diverse students.

Erica Walter, PhD Interdisciplinary Humanities  
*Do Adults Use Gesture to Facilitate Word Retrieval? - A Pilot Study*

Co-speech, or speech accompanying gesture has been a fruitful area of linguistic research since the pioneering work of David McNeill. Researchers such as Goldin-Meadow, Iverson, Lanyon and Rose (to name a few) have linked co-speech gesture to cognitive milestones and word retrieval and spatial description tasks. However, one group which has been consistently under-represented in the literature is adults without cognitive impairment. This pilot study attempts to answer the question: do adults without cognitive impairment use gesture to aid in word retrieval? Participants in the study were asked to watch a classic cartoon. They were then video-recorded while they “retold” the cartoon under two conditions, one with a time constraint, one without. It was posited that the imposition of a time constraint would result in a higher rate of co-speech gesture use, as participants would use gesture to help them “find” the right words quickly. The results, although suggesting that adults without cognitive impairment do indeed use co-speech gesture to aid in word retrieval tasks, also show that the factors affecting their use are more varied than originally suspected. This, in turn, has suggested new research directions.

Tia Rogers-Jarrell, MA Applied Health Sciences  
*Through Their Eyes: Exploring older adults’ experiences with an Intergenerational Project*

Canada’s population is aging at an alarming rate. These rapidly changing demographics have resulted in increased attention to seniors. A key challenge facing many older adults is social isolation. New research on intergenerational programs is showing great promise in addressing social isolation and supporting good health and quality of life for older adults. The purpose of this critical qualitative case study was to explore and understand the lived experiences of six older adults who participated in the Through Their Eyes project - an intergenerational project that connected them with Brock University students. Constant comparative and inductive analysis was used to analyze the data. The Through Their Eyes project positively influenced well-being: participants enjoyed the projects; the project allowed them to be engaged in the present moment; and it promoted connections and relationships between the older adult and student participants. Additionally, through participation in the project older adults felt a sense of pride and accomplishment. The intergenerational project also positively influenced social cohesion: older adults built connectedness and solidarity between generations; fostered community empowerment; and the project provided an opportunity for reciprocity. Intergenerational projects, like the Through Their Eyes project, have the potential to positively influence well-being and build social cohesion. Social isolation is known to negatively affect mental and physical health. Intergenerational projects can combat these negative effects. However, older adults opinions and experiences with these programs often go unrecognized. This study contributed to the literature by exploring the experiences of a population whose perspectives are often unheard.

Esther Santos, PhD Applied Health Sciences  
*“Why do they do it?”: A systematic review of motivation for exergaming*

Background: Exergames have been framed as an alternative resource to promote physical and mental health
(Fitzgerald, 2010; Lyons 2014). Investigations into the motives to play exergames mainly for long-term are both limited and unclear. This review provides a synthesis of studies examining the motivation to play exergames. Method: Data extraction was informed by the Guidance on the Conduct of Narrative Synthesis in Systematic Reviews. An Electronic database search was performed from PubMed, CINAHL, PsycINFO, Periodicos CAPES, Cochrane, and Web of Science. The selected articles were coded by two independent reviewers. Results: Twenty-nine quantitative studies in English and Portuguese were coded for review. No consensus was found among studies either regarding the specific motives for individuals to play exergames or their intentions to continue playing in the future. Heterogeneity was evident regarding the instruments employed to evaluate the participants’ motivation for exergaming, which may have contributed to the equivocal findings. Conclusions: Based on the findings of this review, it appears that little is known about what motives are associated with playing exergames, which limits the understanding of the possible benefits of this game as well as the decision-making process that could be used to guide interventions based on motivational theories.

Cullum Brownbridge, MA Applied Health Sciences
Gladiator Gear: The Role of Equipment in Risk in American Football

Sports equipment has evolved over time to both enhance performance and to reduce the risk of injury. In American football, where equipment is used to absorb hits of massive force, helmets and shoulder pads are strictly implemented to reduce the risk of head and upper body injuries respectively. While the risk of injury is reduced, the athlete’s perspective of risk in such protective equipment is altered. This change in risk equilibrium has the unintended consequence of the individual throwing caution to the wind and playing at a faster, more reckless pace. This altered behavior not only increases the individual’s own risk to injury, but also puts other athletes who are on the receiving end of contact at greater risk themselves. This displacement of risk is particularly dangerous when an athlete is hit in an area that is unprotected and vulnerable, or in an area where the equipment is not as effective as perceived. Drawing on existing research and theories of risk in sport, this preliminary study will examine the relationships and potential disjuncture between sports equipment changes, athlete perceptions of injury risks, and actual injury risks, and will outline future directions for this research.

Daniel Sailofsky, MA Applied Health Sciences
Drafting Errors and Decision-making Theory in the NBA Draft

Even with the recent influx of data regarding NCAA basketball players, NBA decision makers continue to struggle to consistently select productive players in the NBA draft. In this study, I determine the NCAA statistics and player characteristics that predict draft position and NBA performance for NCAA players drafted between 2006-2013. Based on the factors that are under and overemphasized by NBA decision makers, I then examine how these choices relate to general decision making theory. Linear regression models are specified for both draft position and NBA performance. Percentage based metrics are used in place of traditional box score statistics, and all factors are adjusted for the position of the player. A Heckman (1971) sample selection correction is also applied to correct for the non-randomly selected NBA performance sample. NBA decision makers continue to base their draft selections on statistics and characteristics that do not predict future NBA success. Overemphasized factors include scoring, size, and college conference, while limiting turnovers and rebounding are generally underrated. Draft strategy at large can also be connected to several decision-making theories, including Heath and Tversky’s (1991) competence hypothesis, Samuelson and Zeckhauser’s (1988) status quo bias, and Kahneman and Tversky’s (1979) theory of risk aversion.

Bianca Fucile, MA Applied Health Sciences
Who is on the Team? Exploring the Application of a Person Centred Care Approach on an Interdisciplinary Oncology Healthcare Team, from the Healthcare Provider’s Perspective.

With one out of two people receiving a cancer diagnosis within their life time (CCS, 2017), it has been said that Canada is facing a cancer crisis (Ahmed & Shahid, 2012; Faller, 2014). In cancer care, there are two foundational practices, team based healthcare and person centred care. Team based healthcare refers to the collaboration of healthcare providers working together effectively to coordinate the patient’s care. A person centred care approach includes several healthcare providers actively engaging and partnering with patients to deliver the care they want and need. With the increasing priority of framing care decisions around the values of patients and caregivers, it has been recommended that healthcare providers take the next step and actively engage patients and caregivers as team members (OMHLTC 2015). The purpose of my research is to understand the healthcare provider’s perspective on the role of the patient within an interdisciplinary oncology team from the lens of a person centred care approach. Semi-structured interviews with healthcare providers and document analysis of educational resources and organization-based policies will provide me with a gateway to understand how the culture and environment is shaped by the formation of a healthcare team and a person-centred care framework.
Samara Al-Hakeem, MA Child and Youth Studies  
*Improving Self-Compassion in Sexually Abused Girls Through Creative Interventions*

Recent studies have shown a strong connection between early experience of sexual abuse and later psychological maladjustment including alcohol problems, deliberate self-harm, and interpersonal violence. Child sexual abuse (CSA) in particular has been consistently linked to heightened risk for subsequent socio-emotional difficulties across the victim’s lifespan, including a lack of self-compassion, trust and a sense of connection with others. A growing evidence base suggests that increasing self-compassion is a valuable therapeutic target and may protect against the development of post-trauma pathology. The objective of this study is to recognize self-compassion as an adaptive emotion-regulation strategy and explore its integration in a community program that supports victims of CSA. We aim to utilize the perspectives of sexually abused girls about the Kristen French’s Teen Creative Program to understand its impact on their self-compassion before and after participating in the program. The results of our research can assess the effectiveness of the Teen Creative Program in supporting the development of self-compassion and self-kindness in the participants. Results will be shared with the program coordinator in order to assist in refining the practices and activities that are most effective to improve the levels of self-compassion and reduce psychological maladjustment in the victims.

Abbaigeal O’Leary, MA Child and Youth Studies  
*Bringing Student Voices into the Sex-Ed Conversation*

The purpose of this phenomenological study is to examine and describe how elementary school aged students construct meaning out of their sexual health education (SHE) experiences. Past research in the field of SHE has little representation of student voices, suggesting that the viewpoints of students have not been fully considered during the construction and implementation of SHE curricula, specifically within Ontario. With the objective to fill this gap and give power to the unheard student voices data will be collected through interviews with grade 8 students. The 10 selected participants will represent different genders, cultures, and sexual orientations to insure inclusion of different perspectives and experiences. Queer theory will be used as the theoretical framework to guide a data analysis that produces a description of how bodies are gendered and sexualized within the time and space of a classroom. This research project will investigate if SHE curricula effectively reflects students’ lives in today’s society. Research findings will help inform a more relevant curricula design influencing a more intelligible knowledge translation to benefit a wider population of students across Canada.

Tauhid Khan, MA Child and Youth Studies  
*Boys’ Views and Experiences of Sex Education in Bangladesh*

Considering a variety of perspectives and paradigms, the global pedagogical domain is struggling over social, cultural, political, and ethical meanings of sexuality education. Teachers, parents, and policymakers have been encountering challenges for the last few decades in terms of how young people can be educated about sex and sexuality for their healthy sexual lives. Bangladesh, in particular, has encountered many challenges and risks due to epidemics of HIV/AIDS, STIs, as well as high levels of teenage pregnancy, abortion, child marriage, child prostitution, sexual harassment and many more social issues related to sex and sexuality in the lives of children and youth. However, as a culturally conservative society, social norms and values discourage and even deny talking about sexuality publicly in Bangladesh, despite these rising concerns. Providing sex education in Bangladesh is highly controversial since childhood and youth are treated as stages of innocence, thus creating a historically-awkward ‘culture of silence’ in the official school curriculum. Eventually, young people are forced to learn about sexuality by relying on more informal sources, which can provide contradictory and inaccurate information. Moreover, this study argues that the official assumption of silence surrounding sex education is also an illusion, as an animated discussion on sexuality is common among students both on and off campus. Using Foucauldian discourse analysis and social constructionist theory (Berger & Luckmann, 1966), this study attempts to explore how young men navigated sex and sexuality during their adolescence having collected qualitative data through in-depth interviews from male students in Bangladesh.
Willian Roger Dullius, Visitor Scholar - Nursing Department

*Training Needs Analysis Instrument For Health Professionals Caring LGBT+ Individuals*

The overhead training for health professionals to promote assistance for different public started being necessary to care adequately and with respectfully the particularities and needs of patients, such as the LGBT+ individuals. Looking for improving the service caring provided in the health contexts to LGBT+ individuals, this study aims to develop and theoretical validate a TNA instrument for evaluate the gaps in the health professionals competences to provide assistance for these individuals. To map this competences (KSAs), technics, and behaviours, after the data collection, these answers will be evaluated to construct and compose the items for the TNA instrument, which will express observable behaviours and that can be evaluated in the objective way; for the next step, this instrument will be semantically validated in a pilot group with health undergraduate students, and posteriorly, it will be evaluated by judges, whom are specialist in this area; these judges will judge the pertinence and adequacy this instrument elaborated. In the next step, this instrument will be the application of the measure with a group of different area of health professionals, hospitals and public health, so this process can verify the validity evidence and reliability of this instrument of measure developed. When diagnosing gaps in the education of health professionals related to the assistance for LGBT+ individuals, the instrument could be used in different health contexts, also it could subsidiary managers from hospitals and public health system in the program management formation.

Jennie Petersen, PhD Applied Health Sciences

*Review of pedagogical approaches and quality physical literacy experiences for youth*

Physical literacy is considered a precursor for physical activity and sport participation, with development of the concept providing a renewed way of thinking that has united practitioners across various disciplines. With the physical literacy movement still in its infancy in Canada, sport, education and recreation organizations have a significant role to play in bringing physical literacy to the forefront of their work. Canadian youth are one demographic in particular where physical literacy initiatives are important, as research shows that physical activity levels start to decline as children enter into adolescence. Studies have demonstrated the importance of the pedagogical practice in development of motor skills in participants in both sport and educational settings, but there is less research on the specifics of effective pedagogical approaches in developing physical literacy. Physical literacy differs from the concept of motor skill development as it is more holistic in nature, combining the psychomotor, cognitive and affective domains. The focus of this session will be to present a synthesis of findings and best practices from a review of literature to date on physical literacy (including grey literature), on the influence of the pedagogical approach to physical literacy development in youth.

Daniel Cursio, MEd

*First-Aid: A critical component of physical and health literacies in schools*

First-aid enhances safety awareness, reduces accidents, and saves lives. Research reveals that many people are unable to appropriately respond to illness and injuries, which leads to worsened illness or injuries, disabilities, or even death. Although people deem it a life-skill, most students in schools never learn first-aid. Evidence in school-based first-aid programs iterate that relevant training can be implemented successfully for all ages in schools. In fact, students are required to learn basic first-aid techniques in many countries (e.g., Norway, UK, most states in the U.S.). In Canada, first-aid appears to have limited importance in curriculum; however safety is undoubtedly recognized as a vital element in the curriculum (e.g., physical education) and school policy. This presentation will discuss why, what, and how to teach the systematic knowledge and skills of first-aid to K-12 students, and examine the challenges/solutions in implementing first-aid education in schools.

Taylor Downes, PhD Educational Studies

*Using Genius Hour in Teacher Education: Passion Projects Ensuring Better Quality Assignments*

As the educational world becomes more technologically inclusive, the need for teacher candidates to become proficient at integrating technology into their practice is crucial. The Digital Trends and Initiatives in Education ministry document details the stages of technological inclusion within our Ontario classrooms (Howell & O'Donnell, 2017). Creating meaningful learning experiences for teacher candidates can be challenging as their time is split between several different courses, professional development, and practicum. To improve the learning environments for our
teacher candidates, Teaching and Learning with Technology instructors incorporate the concept of Genius Hour within our courses. Genius Hour is a concept based off of Google’s idea of 20 Percent Time, meaning that the company allows its employees to work on individual projects of passion for a short period of time each day, in hopes that the employees will be more motivated, creative, and productive within their regular work expectations (Walker, 2011). Paired with inquiry and problem-based learning, Genius Hour allows our teacher candidates to explore and develop passion projects while building professional online footprints. By giving teacher candidates the time to focus on pursuing their interests, knowledge, and creativity, intrinsic motivation can develop and spread to other subject areas (Katrein, 2016).

Jessica Murphy, PhD Applied Health Sciences
Measuring the Effectiveness of a Mental Health Workshop to change Mental Health Literacy and Help-Seeking Behaviours in University Athletes, Coaches and Athletic Trainers

Athletes have been shown to be as likely as non-athletes to suffer from mental health issues. Due to the stigma, and lack of mental health literacy (MHL) within the athletic community, athletes are less likely than their peers to seek help. MHL, the knowledge/attitudes toward mental health that aid in the recognition, management and prevention of mental health issues can be increased with proper training. This project will: measure the MHL of student athletes and athletic staff, and determine if a workshop effects MHL levels. University athletes and athletic staff participating in a CMHA mental health workshop will be asked to participate in the study. Demographics will be collected and each individual will be asked to complete the MHL Scale and the Help-Seeking Questionnaire 1 week prior to and 1 week plus 3 months after the workshop. Between group and within group comparisons will be made across all time-points.

Matthew Jagas, History
The Triumphant Church: the Ascension of the Catholic Church in Nineteenth-Century Quebec

The nineteenth century was a turbulent time for the Catholic Church throughout the world. However, around the mid-nineteenth century, Canada’s first province of Quebec experienced a remarkable resurgence of Catholicism as the Catholic Church rose to new and unprecedented heights of social, political and cultural influence in the province. Quebec’s Catholic population (the vast majority of the population) seemed to all begin re-devoting themselves to their faith and practicing it with a more rigorous intensity. By the end of the century, the Church was perhaps the most powerful and influential part of society. The object of my research was to investigate the factors that lead to this incredible growth and flourishing of Catholicism in Quebec. The major factors I have identified are firstly the influence in Quebec of the movement within the universal Church to reassert and reestablish its weakened authority in the world - expressed in its precept of ultramontanism; the growth of French-Canadian nationalism and its union with Catholicism; the specific political developments of the 1830s and 40s in Quebec, especially the achievement of responsible government; and the Church’s increased control of provincial education. These factors seemed most significant in leading the Church to its prominent position in Quebec society at the end of the nineteenth century.

Emma Peddigrew, Child and Youth Studies
Improving Children’s Quality of Life With the B.E.S.T Program

Better Emotional and Social Times (B.E.S.T) is a social skills program developed by the LDA of Niagara aimed at improving the quality of life for children. The B.E.S.T program works with individuals between the ages of six and eleven with a learning disability. The B.E.S.T program has four outcomes dedicated to improve one’s self-awareness, knowledge, coping and self-advocacy skills (LDANR, 2018). Implementing the principles of B.E.S.T will provide policy activism supporting the educational aspect of learning disabilities, as well as the self-advocacy and self-esteem aspect. B.E.S.T prepares children to engage socially with appropriate reactions and actions, including body language and facial expressions, in order to develop self-confidence (LDANR, 2018). This is done through games, role-play, meditation, small-group instruction and a new mindfulness session, helping children de-escalate inappropriate or self-destructive behaviors. The program’s outcomes are measured through seven assessment procedures. The evaluations administered weekly involve program participation assessments, social skills observations, interviews regarding self-knowledge, and self-advocacy skills checklists. In addition, self-advocacy strengths and weaknesses, coping skills, and social skill parent observation checklists are administered pre and post B.E.S.T enrollment. After eight sessions administrators analyze assessments and results. I will present the data indicating children significantly improved in each of the four outcomes. Specifically, 70% of children reported an increase in knowledge and 75% of children reported an increase in self-awareness, coping, and self-advocacy skills. The B.E.S.T program provides supporting evidence that social skills programs improve the social and emotional skills of children with disabilities for prolonged success.
Syed Raza, Neuroscience
The Effects of Social-Comparative Feedback on the Neural Control of Balance

Social-comparative feedback is information about an individual’s performance relative to the group. The feedback can be positive or negative depending on whether the individual is told they performed better than or worse than the group. Research has shown that positive social-comparative feedback increases motivation, self-efficacy and balance performance, while negative feedback decreases self-efficacy and leads to smaller improvements in balance compared to positive feedback. The mechanism behind this effect is unclear but could potentially involve changes within the nervous system. The purpose of this study is to assess the effects of social-comparative feedback on corticospinal excitability (a measure of the responsiveness of the brain) and balance performance. Participants will be assigned to either the positive feedback, negative feedback, or control group, and complete eight 90-second trials of a balance task. The balance task requires participants to maintain a horizontal position on a stabilometer (rotating platform). After specific trials, participants in the feedback groups will receive social-comparative feedback while those in the control group will only be shown a balance score. Performance will be measured according to the time spent in the horizontal position on the stabilometer. Corticospinal excitability will be measured by collecting motor-evoked potentials (MEPs) before and after each feedback provision using transcranial magnetic stimulation. It is hypothesized that the feedback groups will exhibit larger MEPs and improvements in balance performance compared to the control group, with the positive group showing the larger changes. These results will further highlight the benefits of social-comparative feedback on motor performance.

Sarah Galway, Kinesiology
Perfectionism and psychobiological responses to social evaluative body image threats in male athletes

Social-evaluative threats lead to negative responses including increased shame and cortisol. Perfectionism influences psychobiological responses to evaluative threats, but this relationship not been examined in male athletes or within a body image context. This study will examine the role of perfectionism in psychobiological responses to social evaluative body image threats in male athletes and non-exercisers. 110 men (half athletes, half non-exercisers) will be randomly assigned to a low or high social evaluative body image threat condition. In the high threat condition, men will have anthropometric (e.g., weight, body composition) and strength measurements taken with their shirt off, in front of a video camera. A male confederate (who meets the Western ideal) will pose as a participant and a female confederate (who meets the Western ideal) will pose as a research assistant and will take all measurements. Those in the low threat condition will undergo the same measurements with their shirts on, with no confederates or video camera present. All participants will provide five saliva samples to assess cortisol and complete measures of state body shame throughout the study. Results will provide evidence of whether sport participation offers protection against social evaluative threats, and how perfectionism moderates psychobiological responses.

Stephanie Pereira, Kinesiology
Body Dissatisfaction and Appearance Stereotypes in Children Aged 3-6 Years: Impact of Physical Activity

Physical activity is associated with a more positive body image in adolescents and adults. Little research has been conducted to determine whether the same is true for young children, even though children’s concept of the body starts to develop as young as two years of age. The purpose of this study is to examine body dissatisfaction and stereotypes associated with different body sizes in children aged 3-6 years, and how participation in the Children’s Movement Program (CMP) at Brock University affects their body dissatisfaction and these stereotypes. CMP is an 8-week program which uses dance, gymnastics, games, and exploration time to promote physical literacy and teach children life skills. Children will complete a short interview assessing perceptions of bodies (e.g., happiest, strongest) and their own body satisfaction based on a silhouette measure before and after participating in CMP. Results will help determine how body image develops in young children and if physical activity can help reduce dissatisfaction and stereotypes.

Colton Watson, PhD Applied Health Sciences
Can Low Dose Lithium Supplementation Attenuate Muscle Inflammation and Atrophy in the Tenotomized Soleus?

Skeletal muscle accounts for 40-50% of the mammalian body. Along with its role in functional mobility, it is also a highly metabolic organ, and therefore reductions in skeletal muscle mass can place a significant burden on quality of life and overall health. Muscle atrophy is a condition that is characterized by a reduction in muscle mass and results from
an imbalance between anabolic and catabolic metabolism. Increased muscle inflammation can contribute to muscle atrophy by activating programmed cell death via caspase-3-mediated proteolysis. We have recently shown that the pro-inflammatory cytokines, TNF and IL-6 are significantly elevated in the tenotomized soleus, which is a model of unloaded muscle atrophy. Lithium supplementation has been previously shown to inhibit lipopolysaccharide-induced inflammation and muscle atrophy. Thus, this study aims to determine the effect of low dose (10 mg/kg/day) lithium supplementation on the inflammation and atrophy observed in the unloaded soleus following tenotomy. Along with inflammation, we will also examine the effect of lithium on polyubiquitination - another mediator of muscle atrophy that may be sensitive to lithium. Results from this study could be used to determine therapeutic potential of lithium in the prevention/treatment of various muscle wasting conditions, including aging and muscular dystrophy.

Danja Den Hartogh, MSc Applied Health Sciences

**Building a mast cell: MAPK signaling influences epigenetic regulation of mast cell differentiation from bone marrow stem cells**

Mast cells are important players in normal innate immune responses to infection and drive pathological allergic inflammatory reactions. The mechanisms directing mast cell differentiation from bone marrow progenitors are incompletely defined. Epigenetic modification by histone acetylation is a key effector of chromatin accessibility during differentiation, however its role in mast cell differentiation has not been explored. General alterations in chromatin accessibility at key mast cell-specific genes have been identified in the stem to mast cell transition, suggesting the importance of its regulation, while the influencing signals remain unknown. The MAPK signaling pathway contributes to regulating differentiation in other cell systems and directly influences histone acetylation modifiers. We aim to measure how the MAPK signaling pathway influences histone modifiers during mast cell differentiation toward the identification of key contributors. Mast cell differentiation was initiated from mouse bone marrow and samples were collected throughout differentiation with or without MAPK inhibitors. RNA and/or protein level was measured for a variety of MAPKs, histone deacetylases (HDACs), histone acetyltransferases (HATs), and mast cell-specific genes. We have identified dynamic impacts of MAPK inhibition on HDACs, HATs, and key mast cell-specific markers suggesting a link between the mast cell lineage program and epigenetic modifications via histone acetylation.

Mackenzie Ruthven, MSc Applied Health Sciences

**The influence of tafazzin on in vitro myogenesis**

Cardiolipin (CL) is a phospholipid that is found predominately on the inner mitochondrial membrane. It has a variety of biological roles including electron transport chain organization, cristae organization, mitochondrial fission and fusion, and signalling in apoptosis and mitophagy. CL is synthesized in the mitochondria and must be remodelled with the appropriate fatty acid chains for optimal functioning. Tafazzin (Taz) is the main enzyme responsible for this remodelling. When Taz function is impaired, mitochondrial function is also impaired, which is reflected by a variety of pathologies such as cardiomyopathy and skeletal muscle myopathy. It is difficult to examine the direct relationship between Taz, mitochondrial form and function, and myogenesis in vivo. An inducible model of Taz knockdown (TazKD) in rodents can be used to isolate and characterize primary myoblasts in vitro. Thus, the purpose of this research is to study the influence of Taz on cardiolipin remodelling and, in turn, on proliferation, differentiation, and fusion in primary myoblasts in vitro. Isolated primary myoblasts will be monitored in proliferation and differentiation supportive medias, and rates will be characterized alongside Taz concentrations. It is hypothesized that TazKD will result in impaired proliferative capacity, differentiation ability, and myotube formation.

Alina Jaglanian, MSc Applied Health Sciences

**Inhibition of MDA-MB-231 breast cancer cell proliferation and survival by rosemary extract**

Breast cancer is the most frequently diagnosed cancer in women. Triple-negative breast cancer cells are negative for estrogen receptor, progesterone receptor, and human epidermal growth factor receptor-2 (HER-2). Triple-negative breast cancer accounts for 15% of all breast cancer cases, is aggressive and is characterized by resistance to chemotherapy and radiotherapy thus, finding new approaches to inhibit it are urgently needed. Many chemotherapy agents are derived from plants. Rosemary extract (RE) has been shown to have anti-cancer properties in vitro and in vivo. However, limited evidence exists regarding its effect on triple-negative breast cancer cells. In the present study we examined the effects of RE and its polyphenols carnosic acid (CA) and rosmarinic acid (RA) on triple-negative breast cancer cell (MDA-MB-231) proliferation and survival and investigated the mechanisms involved. Cell proliferation was measured by the crystal violet assay, clonogenic assays were performed to examine cell survival, and immunoblotting with specific antibodies was performed to examine signaling events. RE, CA, and RA dose-dependently inhibited cell
Mingshan Han, MSc Management

Leveraging mobile app classification and user context information for improving recommendation systems

Mobile apps play a significant role in current online environments where there is an overwhelming supply of information. Although mobile apps are part of our daily routine, searching and finding mobile apps is becoming a nontrivial task due to the current volume, velocity and variety of information. Therefore, app recommender systems are developed to provide users’ desired apps automatically based on their preferences. However, current systems are not designed to effectively leverage app classification scheme and contextual information like location, time, demographic, among others. In the recommendation framework of my research, I adopt and empirically examine an app classification scheme based on text analytics and explore various mechanisms to leverage user-related information and context information in the app categorization scheme. My research attempts to show the feasibility of textual data analysis in profiling apps based on textual descriptions as well as other structured attributes; explore different mechanisms to link app usage categories with user preferences as well as context information to improve the effectiveness of existing app recommender systems; and help app developers reach a wider usage base and increase the popularity of apps through better understanding of user motivation and contextual information.

Jiayu Wang, MSc Management

Public Communications and the Foreign Exchange Risk around the Global Financial Crisis

A large literature, which includes Jansen & de Haan (2007), Ehrmann & Fratzscher (2007), and Connolly & Kohler (2004) studies the effects of public communications on the evolution of currency markets. Recent studies focus on the importance of central bank interventions from different aspects and investigate the relationship between public communications and financial crisis. Considering the above literature, we come up with our research questions: what are market responsiveness of the foreign exchange market to the public communications? Is there a different market reaction during crisis period and non-crisis period? The aim of this empirical study is to investigate the effect of public communications, delivered by officials holding monetary policy related positions, on the foreign exchange volatility. We implement an intraday analysis, consider the three major currencies and the most important US and European official speeches before, during and after the global financial crisis.

Xusheng Yan, MSc Management

Macro News Announcements and Volatility Spillover in Currency and Energy Markets

This study analyzes the behavior of crude oil and exchange rates returns and volatility. Specifically, we aim to address the question that how these returns would react to the weekly EIA (U.S. Energy Information Administration) key petroleum products inventory announcements. Besides, this study also sheds the light on investigating the effects of scheduled and unscheduled macroeconomic news announcements on daily oil and exchange rates around the two crisis periods. Namely, the 2008 Global Financial Crisis and the European Sovereign Debt Crisis. By using the impulse response analysis, this study is able to answer the question that to what extent, the total effects of inventory surprises on one return could be explained by the indirect effects from other returns. What is more, instead of detecting the instant response from a single inventory surprise, this study also analyzes the volatility spillover in an accumulative manner.

Anh Tram Bui, PhD Educational Studies

An Ethnographic Study Exploring “Intercultural Competency” for International Students

International students experience linguistic and cultural difficulties as they integrate into another culture (Andrade, 2006; Zhang & Brunton, 2007). The language courses in their home country do not equip them with the intercultural awareness, knowledge and skills they need in the new country. Existing courses focus on standardized testing (IELTS or TOEFL ibt) but not on actually being able to communicate in a multicultural setting. Many researchers have emphasized the salience of culture in language teaching (Baker, 2002; Brown, 2007; Kramsch, 2013). As Gonen and Saglam (2012) point out, however, teachers in different language classrooms still ignore the role of culture. If students
acquire intercultural competency (IC) their chances for academic and social success would be enhanced (Hammer, 2012). In this ethnographic research, I explored three distinct models of IC including Byram’s (1997), Fantini (2000) and Deardoff’s (2006) model through the lens of my experience and my participants’ experience as an international student from Vietnam. The analysis showed several things: 1. IC is imperative for students going abroad. 2. IC is a life-skill. 3. The three IC models increase our awareness of IC and the development of other IC-related elements as knowledge, attitudes and skills. 4. IC’s development is an on-going and lifelong process. This research will help deepen understanding of what IC is and how to best teach and learn it.

**Tara Johnston, MA Child and Youth Studies**

*Literacy Intervention for Struggling Readers - Knowledge Mobilization in Our Communities*

This study explored academic achievement change and development in children with reading difficulties over the months of May and June, 2017. More specifically, a spring literacy program called The Spring Reading Program, offered by the Learning Disabilities Association of the Niagara Region, was examined. A mixed methodological approach was utilized for quantitative achievement data and qualitative interviews with student tutors, children and caregivers whose children participated in the program. Seventeen children, ages 6-13, were administered a series of pre and post-testing reading-based measures, as well children, student tutors and parents were interviewed individually where responses to nine prepared questions were recorded and later transcribed. Results of the study indicated that The Spring Reading Program help to alleviate reading disabilities and support further literacy development in vulnerable readers. Such findings hold important implications for policy and practice surrounding models of schooling and programming that support children’s learning yearlong.

**Nabin Maharjan, PhD Child and Youth Studies**

*Does mandatory community service program promote civic engagement of young people? Experiences of young Nepalese Canadians living in GTA*

This study explores the experiences of young Nepalese Canadians aged 18-24 who participated in mandatory community services program in over the course of completing high school. The findings are based on ten interviews of young Nepalese Canadians living in the Greater Toronto area (GTA). The study provides nuanced understanding of young people’s experiences on the mandatory community services in high school. The findings suggest that the program merely remain as an obligatory course needed to graduate from high schools rather than an opportunity for young people to engage with diverse Canadian communities. In addition, the case study of Nepalese Canadian youth depicts how young Nepalese Canadians are struggling to describe the value of community services as well as to conceptualize what communities means to them. By highlighting individual experiences and perceptions, the study highlights the ineffectiveness of the mandatory community services especially for young diaspora studying in high schools. Based on this study, we argue that amendment in this mandatory program is an urgent call especially for engaging young immigrants civically and meaningfully in the culturally diverse communities of Canada.

**Ashley Soucie-Vukmanich, MA Applied Health Sciences**

*Heart rate, parenting and adverse childhood experiences on risky and antisocial behaviors among youth*

A multitude of theories suggest the reasoning behind the development of risky and antisocial behaviours in youth. My research looked to compare these theories to develop a better understanding of this development. Arousal theories suggest that people with low heart rates search for mental stimulation, where they participate in risky behaviours to accomplish this. Social theories assume that the environments the youth encounter plays a role in the decisions they make regarding their behaviours. However, there are also biosocial theories, that explain the interaction between these two theories and how they work hand in hand in the development of antisocial youth. Through the HBEAT study participants, multiple analyses were conducted to determine these relationships. It was found that heart rate had no significant effects on antisocial behaviours, where the negative social experiences in childhood and parenting styles did show relationships to the youth’s behaviours. Future research can take this knowledge to determine what aspects of parenting and their environments might be the most impactful. Determining the source of antisocial behaviours in youth may aid in the development of future programs to ensure that at risk youth can follow a positive trajectory.
Carolyn Fast, MA History

In 1876, Ontario opened its first institution for people with a developmental disability, the Asylum for Idiots and the Feeble Minded in Orillia, which later became known as the Huronia Regional Centre. By the 1970s, the Ontario government operated sixteen large institutions however, growing allegations of abuse by self-advocates and their families forced the province to consider de-institutionalization. Yet the movement to de-institutionalize in the 1970s and 1980s, failed to change underlying societal attitudes toward those with a developmental disability and the result has been a persistence in institutionalization. Last year, an article in the Canadian Centre for Policy Alternatives stated that Canada still administers institutions of at least one hundred beds for almost a thousand individuals and, in some places, parents are revisiting the institutional model as a viable solution for ongoing care for their son or daughter. I believe that personhood is at the center of this debate and hope to reveal how families, communities and government can better meet the needs of these individuals without continuing to settle on an institutional answer. Understanding the history of de-institutionalization confronts social stigma related to difference and has implications regarding the notion of citizenship within the context of what it means to be human.

Ace Gammon-Burnett, MA History
A view of all religions in the world: Alexander Ross and the concept of religious diversity during the early Enlightenment

The history of the concept of religious diversity in European thought has traditionally focused on the eighteenth-century Enlightenment. This scholarly view has largely overlooked important literary practices during the seventeenth-century, such as the cataloging of heterodox sects (heresiography) in Britain during the Civil Wars, Interregnum, and Restoration (1642-1685). Although historians have studied how concepts of heresy were constructed, there has not been significant examination of how heresiography as a genre was an unintended precursor to the more neutral, encyclopedic methods of categorizing religion during the Enlightenment. This thesis focuses on the neglected works of the Scottish polemicist Alexander Ross, whose 1653 book Pansebeia: or, A view of all religions in the world_ was the first comprehensive English language compendium of world religions. By analyzing digitized copies of Ross’ printed works (particularly Pansebeia) in their immediate context as products of an orthodox Protestant heresiographer, my research contributes to the historical understanding how the literary imagination of the period categorized religious diversity. Furthermore, by adopting a digital humanities toolset, this project allows me to trace Pansebeia’s reception, Ross’ broader intellectual networks, and the conceptualization of religious diversity within a larger digitized corpus of early modern English ecclesiastical and political literature.

Mitch Goldsmith, PhD Interdisciplinary Humanities
Dying to be Gay: The Sex and Species Politics of Experimenting on ‘Gay’ Animals

Nonhuman animals have long functioned as models, referents, and metaphors for humans. This modeling often includes anthropomorphic tropes that promote regressive and deterministic sex and gender norms among animals and humans. This practice of anthropomorphic projection achieved a new veneer of scientific legitimacy in the 1990s when the idea of a biological basis of homosexuality, popularized by the neuroscientist Simon LeVay, and rooted in experiments on animals, began to circulate amongst scientists, activists, and in the press. This science of homosexuality is based largely on specious experiments on mice, rats, and other animals and involves acute and unjustifiable animal suffering and death. Furthermore, these studies center a contrived, deterministic understanding of homosexuality that is divorced from the rich sexual expression of animals and humans. Animal experimentation belies what Judith Butler identifies as the shared precarity of humans and animals, and the realities, and necessities, of “living socially” in relationships of responsibility and reciprocity. In its stead, this paper advocates a queer turn towards what Rosi Braidotti calls zoe-centered egalitarianism, an affirmative, political ethic of interconnection and interspecies subjectivity. I will show that contemporary queer eco-sexual movements further a zoe-centered egalitarianism and offer alternative social and species relations to those enacted in experiments on animals.
Katelyn Pierce, MA Geography
Invisible Women: Uncovering mental, emotional, and embodied mental health experience with female autobiographical graphic novels

In lieu of conventional methods, scholars are beginning to take note of the benefits of using graphic texts to discuss complicated, sensitive, and/or ambiguous topics (Williams, 2012; Chute, 2010; Charon, 2005). Using autobiographical graphic novels written by women (Katie Green’s Lighter than My Shadow, Nadia Shivack’s Inside Out: Portrait of an Eating Disorder, and Elizabeth Swados’ My Depression: A Picture Book), the purpose of this research is to challenge pathological approaches to mental health in order to argue for the importance of mental, emotional, and embodied experiences in understanding and treating mental health. This interdisciplinary research combines recent scholarship from the medical humanities and feminist geographies to answer the following question: In what ways do female autobiographical graphic novels offer a window into the invisibilised experiences of mental health? Relying on textual, visual, and discourse analyses, I explore complex relationships among space, image, and text to uncover alternate ontologies and epistemologies related to women and health. The implications of this research are twofold: to promote the use of graphic novels as a more accessible treatment option, and to educate healthcare providers and the general public on the merits of using graphic novels to uncover hidden aspects of mental health experience.

Sandra Kroeker, MA Social Justice and Equity Studies
Intersectional Precarity

A growing area of research is in precarious work, which includes jobs characterized by contract work, part-time work, with little-to-no benefits (Standing, 2016). Under Dr. Jonah Butovsky’s supervision I will be joining the Poverty and Precarious Employment in Niagara (PEPIN) project. PEPIN assesses the degree of precarity and what struggles are involved. Replicating the work of Lewchuck, Clarke and deWolff (2008) on the Greater Toronto area, this project aims to apply the same questionnaires and indices to workers in the Niagara Region. The follow-up interviews, which I will be involved in, will probe for more detail regarding their experience. Using Mixed Methods, I will apply a qualitative intersectional approach to precarious work. I will look at differences in sex, age, gender and ethnicity and their personal stories to examine how intersections of power reproduce inequality/inequity in the workplace. A new quantitative heuristic for understanding intersectionality is proposed. Precarious workers may be seen as expendable by the system, but they should not be made to feel expendable at their job. This type of research can be used to inform employers and policy makers about struggles involved in precarious work and provide suggestions on how to make the worker’s lives more manageable.

Grace Maich, MA Critical Sociology
Precarious Work and Communities in the Ontario Context

Precarious work is defined by most labour scholars as insecure, low-wage, and lacking benefits. Work in any field, from retail to academia, can be precarious under the right circumstances. Work insecurity can result in isolation and a lack of community participation, which are already existing problems for older workers. For this research I use a feminist political economy framework and data from a 2014 survey from the Poverty and Employment Precarity in Southern Ontario project (N=4,193) to understand the impact of precarious work on these facets of social life. Results show that precarious work lowers access to social support but has no significant effect on community engagement. However, older workers have higher levels of community engagement and workers over the age of 55 have lower levels of social support. I conclude by discussing potential areas for future research on precarity and aging.

Rachel Richmond, MA Applied Health Sciences
A Phenomenological Analysis of Chronic Pain Self-Management

Chronic pain is a complex problem to live with, diagnose and to treat. It is an unpredictable, life-long fluctuating disease with severe consequences to both the person experiencing the pain, and those surrounding them. As diagnoses are difficult to make, many patients feel that they are not taken seriously, describing accusations from their physicians of psychosomatic pain that is ‘all in their heads’. Patients’ experiences with health care regarding their pain are typically negative, resulting in feelings of frustration, anger, despair, shame, helplessness, and social isolation. Living with acrippling, invisible illness forces patients to self-manage their conditions. Unfortunately, this process of self-
management around chronic pain is not well understood. As self-management is an individual action that differs amongst persons, rich and deep interviews are ideal for discovering the complex efforts people engage in to manage their chronic pain. The purpose of this phenomenological study is to describe and understand the self-management behaviours of persons with chronic pain in Ontario. This research will explore the meanings that participants associate with the phenomenon of self-managing chronic pain, which will fill in gaps within the literature and further the understanding of both self-management and chronic pain.

Zachary Rondinelli, MA Studies in Comparative Literatures and Arts
“More than Words” And Pictures: Temporal-Visual Modalities in Graphica & Its Impact on Literacy

Traditional comics pedagogy is quick to embrace a bimodal understanding of graphic literature focusing exclusively on the visual-textual modal relationship. This current pedagogy reflects a fundamental misunderstanding of the medium and necessitates immediate action to ensure that the multimodality be reflected in our pedagogical practice. In this way, a pedagogy of graphica that reflects its multimodality by embracing other modular configurations of meaning-making provide teachers and students with an opportunity to revolutionize critical literacy in the classroom. My research intends to challenge traditional bimodal pedagogy and will seek to illuminate how non-traditional modular couplets, primarily the temporal-visual couplet, are revealed within graphic literature as powerful tools in teaching students multimodal and critical literacy. This is a lesson of pivotal importance for students today as multimodality has revealed itself to be the predominant manner through which we construct meaning, present information and detail experiences in the 21st century (Drucker 4). Through an in-depth exploration of contemporary comics theory, the social semiotic theory of multimodality and multiliteracies pedagogy, I will display the ways in which modern comics pedagogy can be enhanced by embracing the multimodality of the medium. What is at stake with this paper is a new comics pedagogy designed to provide students with a more meaningful education streamlined for the 21st century learner.
1. Kirina Angrish, MSc Applied Health Sciences

*Do physically active women achieve positive body image throughout their pregnancy?*

Several studies have shown that negative body image changes over the course of pregnancy; however, little research has investigated positive body image during this time. Further, in non-pregnant populations, physical activity is associated with body appreciation, one aspect of positive body image. Whether it is also related to body appreciation in pregnant women is less clear. Early research has shown that for pregnant women who exercise, body image becomes less negative across pregnancy but for those that do not exercise, it becomes more negative; further, body image is associated with psychological well-being of the mother. The purposes of this study are: (1) to investigate how body appreciation changes throughout pregnancy, and (2) to determine if physical activity is associated with higher body appreciation due to greater embodiment and lower self-objectification. The study will recruit approximately 120 pregnant women who will complete the Pregnancy Physical Activity Questionnaire (Chasen-Taber et al, 2004), the Body Appreciation Scale-2 (Tylka and Wood-Barcalow, 2015), the surveillance subscale of the Objectified Body Consciousness Scale (OBC-S; McKinley & Hyde, 1996), the Physical Body Experiences Questionnaire (Menzel, 2010), the Body Awareness Questionnaire (Sheilds, Mallory & Simon, 1989) and the Body Responsiveness Scale (Daubenmier 2005).

2. Bradley Baranowski, MSc Applied Health Sciences

*Evidence of increased prefrontal cortex inflammation and amyloid precursor protein processing in a translational swine model of heart failure with preserved ejection fraction*

The oligomerization of amyloid beta peptides (AB), a histopathological hallmark of Alzheimer’s disease, may be elevated in cardiogenic dementias coincident with heart failure (HF). BACE1, the rate-limiting enzyme in the amyloidogenic process, initiates the processing of amyloid precursor protein (APP) leading to the production of AB. The purpose of this study was to examine the mechanisms of cardiogenic dementia in a novel model of HF exhibiting comorbidities including obesity and metabolic syndrome. Female Ossabaw pigs were randomly divided into two groups; control (CON, n=4) and heart failure (HF, n=4). The HF group was placed on a Western diet (3 mo. old) and aortic-banded (6 mo. old) prior to euthanasia (12 mo. old). At euthanasia, prefrontal cortex and hippocampus regions were collected for Western blot analysis. The HF group exhibited greater prefrontal cortex total APP (p<0.01) and BACE1 (p<0.01) protein content. There were also increased markers of chronic stress and neuroinflammation, specifically phosphorylation of JNK (p<0.01) and ERK (p<0.01). Similar results were observed in the hippocampus for increases in APP processing and neuroinflammation. These data reveal that inflammatory stress may be implicated in the regulation of AB metabolism and potentially contribute to the cardiogenic dementia often observed in HF patients.

3. Kimberley Bowen, MA Applied Health Sciences

*What Constitutes An Expert Registered Nurse in Labour & Delivery? A Phenomenological Inquiry*

The purpose of this study was to explore what constitutes an expert registered nurse in a labour and delivery unit. A qualitative, phenomenological approach was used to guide and analyze the interviews of twelve participants recruited through purposeful sampling. Benner’s From Novice to Expert theory was used as both a theoretical definition of expert as well as a baseline for participants to self-identify with one of the levels of skill acquisition (novice, advanced beginner, competent, proficient or expert). Three themes emerged from data analysis: characteristics of expert nurses, significance and impact of loss and difficulty with the word ‘expert’. The study results showed that expert is a fluid concept that is both difficult to define and maintain throughout a nurse’s career. Factors such as education, technology, culture, environment and most notably autonomy, impact the nurse’s ability to achieve expert status as well as their confidence in maintaining expert throughout their careers. In addition, environmental and practice related changes impacting these factors resulted in feelings of loss that also impacted the nurse’s perception of expert nursing. Ultimately, it was identified that Benner’s definition of expert is not complete and would require additional research with the focus on relational and psychosocial elements of nursing specifically in the labour and delivery setting in order to achieve a more comprehensive definition.
4. Hyacinth Campbell, MEd
Shadeism: An Understanding of the Experiences of Racialized Black Female Students in Post Secondary Education

My research interrogates the discourse on race and the complexity of the issues faced by racialized Black female student in post-secondary education. The implications of how the nuances of race and skin colour inform student’s attitude toward issues of skin complexion and their social engagement in an educational context need to be deliberated. Although there is considerable focus on racism in anti-racist approaches to understanding experiences of racialized people, shadeism has received less attention. Therefore, the void created in the discourse in recognizing shadeism reinforces negative stereotypes of how the difference in skin tone is interpreted.

Moreover, shadeism complicates how Black women negotiate race and how they experience difference based on their skin tone. As a result, their interpretation of what it means to be black informs the complexities of how they articulate the social barriers that either grants them privilege or place them on the margins of school and society.

The nuanced discussion on race raises the concern about what educators need to understand when confronting issues of racism in the classroom. Also, the narrow definition of blackness limits how we identify and construct blackness that often reinforces some negative assumptions. Therefore, the anti-racist discourse cannot dismiss the argument of shadeism when facing the problem. An in-depth understanding of shadeism will deepen our awareness of the racialized experiences of Black women on Campus. Therefore, the influence of how blackness is perceived has implications about how racism manifests itself, and consequently should not be overlooked.

5. Jeremia Coish, MSc Applied Health Sciences
Role of TAK1 in mast cell recognition and response to bacterial infection

Mast cells are amongst a distinct collection of white blood cells tasked as one of our first lines of defence against bacterial infection and key in innate immunity. Recognition and response to bacterial infection by mast cells involves surface detection of pathogen associated molecular patterns on the surface of bacteria, called lipopolysaccharides (LPS), by Toll-like receptor 4 (TLR4). Emerging research is exploring how these receptors transmit signals within the cell to induce expression of key genes for eliminating the bacterial invasion. Transforming growth factor beta-activated kinase 1 (TAK1) is a central intracellular molecule in the TLR4 pathway, in other contexts, but its role in mast cell-mediated defence remains unexplored. As signals pass through TAK1 and disperse, proteins called transcription factors are activated. These transcription factors coalesce to engage with DNA, driving the necessary production of inflammatory mediators. 5Z-7-oxozeaenol is a natural fungal product that has been shown to inhibit TAK1, culminating in abrogated signaling cascades. To explore the role of mast cell TAK1 in responses to bacterial infection, cells will be stimulated with LPS with or without TAK1 inhibition. Variation in mast cell responses (gene expression, cytokine production, degranulation, signaling) will be compared between conditions, identifying the influence of TAK1.

6. Alyssa Davis, MSc Earth Sciences
Microthermometry on halite fluid inclusions confirm paleoclimate during the Upper Silurian of the Michigan Basin

Halite, a mineral better known as rock salt, was widely deposited in ancient times. During its crystallization, microscopic fluid-filled bubbles or inclusions can become trapped, preserving samples of ancient fluid. These inclusions may be subject to several analytical techniques by which paleoclimatic conditions can be established. Herein, microthermometry is the technique used to confirm the depositional conditions of ~420 million-year-old salt by determining its homogenization temperature. The homogenization temperature represents the minimum temperature at which fluid was trapped in the inclusions of the associated mineral. Applying this technique to well-preserved, unaltered halite fluid inclusions, we can infer approximate temperatures of the surrounding water and air at the time of entrapment. Homogenization temperatures ranging from 14.0°C to 34.8°C have been determined for halite samples from the A-2 and B units of the Salina Group deposits sourced in the Michigan Basin. These results suggest warm, sub-tropical conditions during the Upper Silurian which agree well with other fluid inclusion studies of these deposits, paleogeographic interpretations of the Silurian continents, as well as climatic models of Silurian sea surface temperatures.

7. Kyle Delhom, MA History
Deadweight: The Katyn Forest Massacre and the Emergence of Political Distrust in the 20th Century

At the height of the Second World War in 1943, there was a grim revelation of mass graves of Polish officers discovered in the Katyn Forest outside of Smolensk. The report that came from Radio Berlin stirred confusion amongst the
Allied powers and created a realm of uncertainty. On one end, the Nazis blamed the crime on the Soviets while simultaneously, Stalin’s government declared the murders were on the hands of the German fascists. Throughout the rest of the war and the years that followed, this issue of identifying the perpetrator remained heavily problematic for the Allied governments. Specifically, the exiled-Polish government in London was caught in the middle of this ongoing conflict of truth and falsehoods. For this poster, I will show the internal conflict created by Katyn with political investigations and coverups by Allied officials. Primarily, I will use a wide range of material such as documented correspondences between government officials, investigative reports, and historical accounts of the massacre from non-political individuals. I argue that the actions carried out by the Allies in response to the revelation, permitted an atmosphere of distrust to grow in government which shows that even the Allies were capable of wrongdoing in wartime.

8. Colin Dunne, MSc Applied Health Sciences
A Comparative Analysis of In-Skate Pressure Distribution and Acceleration Time During Skating Starts Performed on Three Different Blade Pitch Settings

A quasi-experimental design was used to compare in-skate pressure distribution (psi) and acceleration time (s) collected while executing two different on-ice skating starts, while skating on three different skate blade pitch settings. Two elite, male hockey players with significant ability and playing experience performed nine trials of each start, blinded to selected pitch conditions. Subjects’ boots, blade holders, blades and sharpening characteristics other than pitch were held constant across trials. Instrumentation included a commercially available pressure distribution insole inserted into the skate to measure in-skate plantar pressure distribution (psi) (Orpyx Medical Technologies Inc.) and timing lights to measure acceleration times (s) (TAG Heuer) of skill execution. Results revealed significant differences in peak plantar pressure (psi) across the three pitch conditions for one of the two starts (p< .05). Significant differences were found in acceleration time (s) across the three pitch conditions for one participant while executing the forward start (F(2,6) = 19.81, p< .05). Significant correlations were found between peak pressure (psi) and acceleration times (s) suggesting that greater pressure facilitated faster starts. Outcomes of the study may assist players in making educated decisions on skate sharpening profiles, specifically pitch settings, that potentially facilitate quicker starts and acceleration.

9. Adam Fischer, MA Geography
A Domestic Geography of Money: How Mortgage Debt, Home Prices, and Toronto’s Condominiums “Prop up” the Canadian Economy

The Canadian home has been redefined in response to the global financial crisis of 2008. The global financial crisis negatively impacted nations around the world, yet, in Canada the effects were lightly felt. In response to this crisis, Canadian banks received significant financial support from the government through the Insured Mortgage Purchase Program and the Canada Mortgage Bond program totaling roughly $137.55 billion. These two programs incentivized Canadian lenders to relax mortgage qualifying standards in an attempt to generate increased mortgage debt which could then be packaged into mortgage backed securities. Through a discourse analysis of primarily government reports, this poster expands on this knowledge by displaying how house prices and household debt have continued to inflate since the global financial crisis and how an “adverse economic event” has the ability to cause a downward spiral of unemployment, mortgage default, and a drastic reduction in house prices. As well, it examines the significance of Toronto and its condominium market in “propping up” the economy through the increased generation of mortgage debt. It is through this urban, geographical analysis that we see the human and physical realization of Canada’s current economic milieu.

10. Emily Ham, MSc Earth Science
Climate Change in the Niagara Region? A study of the upper Twelve Mile Creek.

2015, 2016, and 2017 are considered globally to be the warmest years on record (Met Office, 2017) due to climate change. Rising temperatures are detrimental to sensitive aquatic ecosystems and their biota, and this is apparently the case in Niagara’s upper Twelve Mile Creek (uTMC). The uTMC watershed is a cold-water system made up of the St. John’s and Effingham which are home to a sensitive fish population of brook trout (Salvelinus fontinalis). Since 1998, the Friends of the Twelve, Brock University, and the NPCA have conducted regular water temperature monitoring across the two branches of the uTMC. The objectives of this study, 1) is there a temperature difference between the St. John’s and Effingham, 2) is there an annual temperature difference within the last 19 years (1998-2017), and 3) do uTMC water temperatures threaten the brook trout population. Results show that there is no significant difference in temperature for the past 19 years. Despite changes in air temperature, the uTMC system is not being impacted by
climate change at present. Future studies should examine other water quality parameters, such as dissolved oxygen and suspended sediment load, to determine the cause for the declining uTMC brook trout population.

11. Grant Hayward, MSc Applied Health Sciences

*Loss of sex hormones alters insulin signaling in the prefrontal cortex and hippocampus independent of heart failure in female aortic-banded Yucatan miniature swine*

Estimates indicate ~50% of patients with heart failure with preserved ejection fraction (HFP EF) experience dementia. Interestingly, postmenopausal women represent the largest cohort of patients with HFP EF. Impaired insulin signaling in the brain has been implicated in dementia, but how such processes are effected by the loss of female sex hormones, seen in postmenopausal women, remains to be elucidated. Using a large animal model of heart failure, we tested the hypothesis that the loss of female sex hormones alters proteins involved in brain insulin signaling. Twenty-eight female Yucatan miniature swine were divided into four groups (n=7): control (CON), aortic banding (AB; pressure overload model of heart failure), ovariectomy (OVX), and AB with OVX (AB-OVX). Pigs underwent OVX and AB at 7 and 8 months of age, respectively, and prefrontal cortex and hippocampus brain tissues were collected at 14 months. Estrogen receptor-α (p<0.05) content was reduced with OVX in both cortical and hippocampal brain regions. In the cortex, OVX reduced total Akt (p<0.05), and in the hippocampus OVX reduced phospho-Akt Ser473 (p<0.05) and phospho-ERK (p<0.05). In conclusion, the loss of female sex hormones alters Akt and MAPK/ERK protein content/pathway activation predominantly in the hippocampus, independent of heart failure.

12. Alyssa Jackson, MSc Applied Health Sciences

*Should I Have to Look Good for You? Examining the Thin Ideal in Pop Music Lyrics on Women’s Body Image During Exercise*

Media exposure to the thin ideal for women leads to an increase in negative body image outcomes. One form of media, music videos, has specifically resulted in increases in body dissatisfaction and decreases in self-esteem for women. However, it is unclear whether it is the images in these videos or the lyrics in the songs that lead to the negative outcomes. Lyrics in popular music, commonly played during exercise, often promote the thin ideal and objectify women. However, no research has examined whether the lyrics themselves can negatively impact body image during exercise. This study aims to investigate if lyrics in pop music affect body image in female university students during exercise. Participants will listen to thirty-minutes of music on two separate occasions while completing a walk/run at their preferred pace. In one session, music that has negative body image lyrics will be played and in the other session, music that has lyrics that does not address the body at all will be played. Participants will complete measures of state body dissatisfaction, self-objectification and body appreciation. If music with negative body image lyrics negatively impacts body image in women, this type of music should be avoided during exercise.

13. Caitlin Kelley, MA Applied Health Sciences

*Interventions Adopting Motivational Interviewing to Enhance Medication Adherence: A Systematic Review & Meta-Analysis*

Medication non-adherence refers to failure to adhere to medication regimens and therapies provided by health care professionals (World Health Organization [WHO], 2003). Roughly 50 percent of individuals with chronic disease are classified as non-adherent to medication (WHO, 2003). Medication non-adherence is preventable and associated with increased health care costs via increased morbidity, mortality, hospital admissions and condition management (Neiman et al, 2017). Motivational interviewing (MI) is an empirically-based communication technique created to guide health professionals in supporting behaviour change (Miller & Rollnick, 2013). Recent reviews have demonstrated the effectiveness of MI interventions on medication adherence (Palaco et al, 2016; Zomahoun et al, 2017). The purpose of the proposed study is a systematic review and meta-analysis of MI interventions targeting medication adherence. This research builds on prior reviews via: 1) more comprehensive inclusion criteria; 2) consideration of the completeness of interview reporting and; 3) characteristics of the MI intervention. A systematic literature search will be conducted using PUBMED, CINAHL, PSYCHINFO, MEDLINE and OvidHealthStar. Primary sources meeting eligibility criteria consistent with PICO will be retained. Primary sources will be independently coded and effect sizes calculated. Moderator analyses will be conducted across select sample, study and MI-intervention characteristics that may impact medication adherence.
14. Mackenzie Kirkey, MA History
NASCAR’s Efforts to Vanquish Organized Labor

The main purpose of this poster proposal is to examine two campaign efforts by the race car drivers to unionize NASCAR in the 1960s. Why would the drivers consider unionization as the best way to have their grievances heard and addressed by NASCAR’s owner and single operator, Bill France Sr.? This is where the gap in the historical literature lies. Labor historians in particular, fail to address this specific question. For labor historians, they fail to connect the tactics used by owners of southern industry, such as firing union organizers, blacklisting them, and hiring scabs, with those similar or exact tactics used by France to prevent NASCAR from becoming unionized. This is why labor historians must study these similarities, as it directly relates to their field of study. Primary documents, in several North Carolina archives will be the primary focus of primary source research. This MRP argues that insufficient scholarly attention has been paid in the existing literature to analyzing and explaining why these labor campaigns emerged, and what explains the suppressive actions taken by France. This proposed research and poster will fill a gap in the historical literature that is long overdue.

15. Nancy Leathen, MA Applied Disabilities Studies
Decreasing Food Selectivity Using the High-Probability Request Sequence: A Review

The high-probability (high-p) request sequence is a non-intrusive procedure that consists of the presentation of a series of high-probability requests followed by the presentation of one low-probability request (Mace et al., 1988). It has been shown to effectively increase food acceptance, academic and social instructions, and compliance with medical tasks across a variety of populations (e.g., Lee, Belfiore, Scheeler, Hua, & Smith, 2004; Patel, Reed, Piazza, Muellwe, Bachmeyer, & Laver, 2007; Riviere, Becquet, Petret, Facon, & Darcheville, 2011; Wilder, Majdalany, Sturkie, & Smeltz, 2015). To date, only eight studies have examined the effectiveness of the high-p request sequence to increase food acceptance, and this research has produced mixed results. It is possible that the existing research has produced mixed results because researchers used different (a) types of high-p requests (e.g., an empty spoon, food on a spoon, or a motor task) and (b) reinforcement procedures for compliance with the high-p and low-p requests. In this poster, we examine the current literature on the high-p request sequence to treat food selectivity, highlight and discuss procedural differences across studies, and provide directions for future research.

16. Aindriu Maguire, MSc Applied Health Sciences
Mitochondrial regulation of allergic inflammation - The potential role of tafazzin

Background Mast cells, immune cells that reside in tissues that interface with the external environment, play a critical role in allergic pathologies. Recently, mitochondria- the site of the majority of energy production in a cell- have been shown to be involved in the process of mast cell degranulation, which initiates the allergic reaction, through their translocation to sites of inflammatory mediator release. Impairments in mitochondrial function have been shown to decrease energy production in the cell, as well as the extent of mast cell degranulation. Current Study Tafazzin (TAZ) is a protein that remodels a phospholipid in the mitochondria called cardiolipin. Mature cardiolipin is important for maintenance of energy levels within the cell. This study will be using an inducible TAZ gene knockdown model to analyze the role that tafazzin plays in allergic reactions. Knockdown of TAZ will be followed with a variety of measurements for mast cell allergic inflammatory mediator secretion (e.g. degranulation and cytokine secretion) while also assessing cellular respiration, energy levels, and mitochondrial translocation. Results from this study will provide rationale for the potential development of therapeutic techniques that target tafazzin as a way to regulate mast cell mitochondria, in turn regulating the severity of allergic reactions.

17. Kate McGregor, MA History
Christmas in the (German) Colonies

In the last thirty years, historians, including Lora Wildentha, have started to question the role of women in the German Imperial colonies. However, as the focus on women specifically is recent, there are avenues of exploration that have not been addressed, such as holidays. My poster will help enhance the understanding of German women in the African colonies as it concentrates on the role of women in maintaining Christmas traditions and creating the Christmas mood (Weihnachtsstimmung). Specifically, I will be looking at the memoirs of Magdalene von Prince and Helene von Falkenhausen to connect a perfect Christmas and the creation of the Christmas mood to notions of German identity and a connection to the homeland (Heimat). By comparing the two memoirs, it is apparent that the success of a Christmas varied due to geographic location and class. I argue that German women in the colonies were able to
maintain a connection to the homeland and German identity only if they were able to obtain the proper Christmas food and decorations and create the Christmas mood. In conclusion, this poster, by focusing Christmas traditions, brings new light to the often neglected but important role of German women in the African colonies.

18. Cody McMahon, MA History
Soldiers to Scholars: Veterans and Universities in Postwar Canada

As the Second World War came to an end in 1945, the process of rehabilitation began for participating nations; soldiers became veterans, and governments began to reintegrate these individuals into peacetime society. While many historians have examined the policy logistics of veteran’s rehabilitation in Canada, the reasons that compelled veterans to take advantage of such policies has not been adequately addressed. My research examines the impact of veteran’s rehabilitation policy on Canadian universities after the Second World War, focusing on the factors that led a significant number of veterans to attend these schools. Using the University of Toronto as a case study, I will be looking at the educational and administrative changes that occurred in the postwar era and how these changes reflected the increase of a student body that was largely made up of Canadian veterans. I argue that the University of Toronto, and more generally universities in Canada, provided veterans with the opportunity to reintegrate into a new socio-cultural climate and rehabilitate on their own terms. By closely examining the impact of veterans on Canadian universities, this project will reveal how veterans envisioned their rehabilitation and how public institutions like universities helped meet their needs in postwar Canada.

19. Reghann Munno, MA Applied Disability Studies
Increasing Young Children’s Compliance with Essential-Routine Procedures

Child noncompliance during dental exams and haircuts can prevent the successful completion of these procedures (e.g., Allen, Stanley, & McPherson, 1990; Cuvo, Godard, Huckfeldt, & DeMattei; Shumacher & Rapp, 2011). This problem is exacerbated when the procedure involves the use of sharp objects (e.g., dental scrapper, scissors) that can cause physical injury to children who exhibit noncompliance, problem behavior, or other avoidant behaviors during the procedure. We examined the effectiveness of a treatment package consisting of demand fading, synchronous reinforcement, and escape on the acquisition and generalization of compliance of 2 young children with autism spectrum disorder during a dental exam (participant 1) and a haircut (participant 2). Results showed that the treatment package was effective for increasing compliance in an analogue setting for both children and generalization to the natural setting was achieved for one child. Results are discussed in terms of treatment implications and the importance of programming for generalization.

20. Nyasha Nyereyemhuka, MEd

This research explores the perspectives of five secondary school principals in urban settings on the implementation of policies that support the Ontario Ministry of Education’s vision Achieving Excellence (2014): A Renewed Vision for Education in Ontario (Achieving Excellence). Achieving Excellence is framed around the notion that the systemic barriers and discriminatory biases that exist in Ontario’s education system have created an environment that prevents students from achieving their full academic potential. The problem that drives this research is the disparity of student success between marginalized and non-marginalized groups of secondary school students in urban settings despite Achieving Excellence’s goal to reduce the gap. Using Spillane, Reiser, and Reimer’s (2002) theoretical framework titled the Cognitive Framework of Implementation, this study outlines the importance that sense-making plays on policy implementation performed by micro-level actors. Utilizing a generic qualitative approach, collection of provincial and school level written documents and the conduction of semi-structured interviews is employed. The synthesis of results is intended to further discourse with school boards, policy makers, and the Ontario Ministry of Education on how to better support students with access to equitable and inclusive education.

21. Talha Rafiq, MSc Applied Health Sciences
Relationship between parenting behaviour, physical activity, obesity, and systolic blood pressure among children

Background: Studies have examined the relationship between adverse childhood experiences (ACEs), obesity, and systolic blood pressure, but the results are conflicting. Moreover, the role of physical activity and parenting in explaining this relationship has not been explored. Objective: The purpose of the current study is to examine the
relationship between ACEs, physical activity, parenting, obesity, and blood pressure among children. Methods: A total of 1,221 children aged 10-14 years were included in the analysis. Data on ACEs, physical activity levels, and parenting variables were obtained using parent completed questionnaires. Results: The results of multiple regression indicate that children who experienced 4 or more ACEs and those who experienced increased anxiety had significantly lower levels of physical activity in relation to their peers. Moreover, positive and punitive parenting were positively associated with children’s participation in physical activity. Lack of physical activity in turn was associated with higher systolic blood pressure, and obesity explained 84% of the relationship between physical activity and systolic blood pressure. Conclusions: These findings suggest that adverse childhood events and parenting behaviors influence physical activity levels, which in turn can lead to increased blood pressure among children.

22. Michael Sencherey, MBE
The impact of foreign exchange rate and stock prices on rate of returns of Real Estate Investment Trust (REIT) in Canada

Research Proposal by Michael Sencherey (ID: 5958988) The impact of foreign exchange rate and stock prices on rate of returns of Real Estate Investment Trust (REIT) in Canada Introduction Real estate investment trust was established in 1960 by the US congress as a modification of the Cigar Excise Tax Extension to enable investors to obtain ownership in commercial real estate portfolios. The attractiveness of the REIT stock investment compared to alternative investments comes from the income earning potential through rental properties such as apartment complexes and hotels. Investors enjoy the diversification benefits and inflation- hedging benefits of REITs. However it is important to understand factors that drive REIT prices in order for investors to minimize risk and maximize returns on their investment portfolios. Returns on REIT prices depend on factors such as foreign exchange rates and stock prices. Depreciation of a country’s domestic currency against foreign currencies can lead to an increase in the domestic country’s tourism and therefore an increase in consumer spending on rental properties. As a result rental properties can enjoy increasing revenues as demand increases and cause an increase in returns of REITs. On the other hand increase in stock prices may have a positive effect on REIT returns. Increasing stock prices may signal inflation in the economy and investors may react to the market by investing more in REITs. This research project aims to explore the impact of foreign exchange rate and stock prices on REITs in Canada.

23. Kristen Shaver, MSc Earth Sciences
Equatorial temperatures of the Visean (Carboniferous): a microthermometric analysis of halite

In research on ancient evaporites, including halite, the temperature of formation is a critical component of the paleoclimatic setting. Halite inclusions analyzed for their trace chemistry and stable isotopes may provide clues of the ambient seawater conditions. In addition, microthermometry may be used to determine the temperature by further analyzing the fluid inclusions trapped in halite. Unaltered halite containing single-phase (liquid) inclusions were cooled to low temperatures to nucleate bubbles within the inclusions, subsequently they shrink as the sample is heated until it disappears indicating the minimum temperature of formation. The Visean, an interglacial, has been described as a time with relatively high temperatures. Nova Scotia near equatorial paleolatitudes had a warm, semi-arid climate with seasonal precipitation. Precise climatic temperatures have yet to be reported using microthermometry, although, other proxies determined that sea surface temperature during the Visean ranged from 16 to 35°C. This study recorded temperatures with a much larger range of acceptable values. Samples from earlier in the Visean recorded temperatures ranging from 22 to 53°C and in the later Visean dropping to 13 to 23°C. This dropping temperature coincided with the onset of the next glacial episode, the Late Paleozoic Ice Age.

24. Surim Son, MSc Applied Health Sciences
Cardiometabolic comorbidity, depression, and anti-depressant use among Canadian elderly – a cross-sectional analysis.

Comorbid physical illness, such as cardiovascular disease and metabolic disease, may contribute to the increased risk of developing depression. Antidepressant is used as the first line therapy to treat depression. Yet, this class of drugs can be problematic given that they are often associated with weight gain and metabolic abnormalities. With a growing aging population in Canada, it is reasonable to suppose that the incidence of comorbid mental and physical illness increases with age. However, reliable statistical data for Canadian seniors is scarce and there is little or no population level information on the comorbidity profile of seniors either in relation to the incidence of depression or antidepressant use. Therefore, the purpose of this study is to estimate the prevalence and association of cardiometabolic comorbidity with depression and antidepressant use. The baseline data of Canadian Longitudinal Study on Aging will be used in this analysis. The prevalence and the association between comorbidty and depression, and
comorbidity and antidepressant use will be examined using SAS 9.4. Having a clearer picture of the actual distribution of comorbid physical illness and its association with depression and antidepressant drug use will be fundamental to develop appropriate health care policy and program for seniors.

25. Luis Vargas, MSc Earth Science
Elastic models of wrinkle ridges: Insights of the interior of Mars

The Martian Tharsis province is a large volcanic bulge that contains Valles Marineris, the largest canyons of the solar system having dimensions of ~4000 km long and up to 11 km deep. Wrinkle ridges appear on the surface of the Tharsis, they are long linear topographic expressions thought to have formed due compressional tectonism. The walls of Valles Marineris create a window to the interior of the Tharsis province, which allows us to observe possible underlying structures that formed topographic expressions like wrinkle ridges. I model the possible underlying structure of two large wrinkle ridges that neighbour Valles Marineris using structural features observed on the walls near them. These structures form the basis for elastic models that recreate the topography of the large wrinkle ridges. Comparison of the results of the model with the current topography, obtained from digital elevation models from the High Resolution Stereoscopic Camera (HRSC), show that both topographies are congruent. This indicates that the modelled structures represent the underlying structures of the large wrinkle ridges. These results provide insights into the complex geological history of Martian tectonism and the processes involved in their formation.

26. Joshua Wyatt, MBE
Impacts of Minimum wage and the Wage Gap In Canada

The potential impacts of increases to the provincial minimum wage across Canada, focusing specifically on how these increases affect the gender wage gap. This study will be using data obtained from the Canadian Labour force survey on average hourly earnings for full time private sector employees. Exploring the impacts on the gender wage provinces that have had large minimum wage increases versus those with small or no increases to minimum wage. With the recent controversy of the minimum increase in Ontario is gender wage equity a potent societal benefit that has been over looked?

27. Miroslav Zovko, PhD Interdisciplinary Humanities
Maps of 2008 Economic Crisis

The 2008 finance capital meltdown is the event which makes manifest the process of reconfiguration of all aspects of our experience in economic terms. Our cultural, political, aesthetic vocabularies, social practices, institutions and imaginaries acquire distinctly economic character. Economic growth becomes the only aim which legitimizes state government today. The set of economic policies promoted globally is based on deregulation of finance capital, reduction of welfare spending, austerity measures, privatization of public goods, increasing debt, commodification and marketizing of all domains of private and public existence. The economization of noneconomic processes is both cause and the symptom of an epistemological shift: human and non-human beings are considered as capital and resources to be invested into or exploited. The aim is always to maximize ratings or rankings, attract investors and stay competitive. Understanding of the mediation processes in the heart of this shift may contribute to the conceptualization of different policies and futures.

Afternoon Session

1. Michelle Lesley Annett, MA Critical Sociology
Navigating Socially Devalued Forms of Work: Exploring the Lives of Mothers who Strip

Despite much scholarship fixated on issues faced by working mothers today, little literature is dedicated to exploring the experiences of women who take part in highly stigmatized and unconventional means of labour to provide for their children. As a result, the purpose of my research is to illustrate both a micro and macro understanding of the experiences of mothers who earn their living through exotic dancing, ultimately asking the question ‘how do these women navigate their dual identities of being both caretakers and sexual entertainers?’. In doing so, this research aims to explore the daily routines and practices employed by these women to meet the responsibilities of both roles, their experiences navigating work and care, how they negotiate the work of social reproduction, the forms of support they have access to and the barriers these women have been faced with. Consequently, the goal of this small qualitative
2. Meghan Birbeck, MS Sustainability

Flood perception of Toronto and Calgary residents with respects to the local floodplain.

Canadians are exposed to climate change risks, particularly extreme rainfall. Currently substantial government support is being provided to Canadian municipalities and citizens to recover following a flooding disaster, as there is an absence of flood insurance. The future of climate change forecasts more intense and frequent rainfall. With a focus on urban flooding, this research is looking into individual risk perception of citizens of two Canadian cities that both witnessed major flooding in 2013: Calgary, Alberta, and Toronto, Ontario. To understand if citizens in closer proximity to local floodplains have a higher perceived risk. 64 citizens from Calgary and 118 from Toronto were analyzed to understand. Their individual preferences were collected by Dupont, Price, Adamowicz, and Lloyd-Smith in 2016. While their actual risk is determined based on their linear location in relation to the floodplain from their selected municipality. This research is uses Probit Analysis and Linear Regressions to assess the association between the perceived and actual risk of citizens. Understanding perceived risk will help municipalities to properly manage the mitigation efforts of citizens prior to an event, to reduce the reliance on government support which is expected to increase with the future of climate change.

3. Emily Byrne, MA History

Representations of Royalty: A Question of Gender and Rule under Mary II and Anne

Mary II and Anne, Stuart Queens who reigned in the years 1689-1695 and 1702-1714 respectively, are the lesser-known of the six queens regnant in England’s history. Scholarship on the topic of these two queens focuses on their positions as women within the political realm, their abilities to rule in late Stuart England, and representations of their femininity. This poster subsequently builds on existing literature to cast the role of queen regnant as a unique figure inhabiting the role of monarch and woman, subverting conventional boundaries defining elite masculinity and femininity, public versus private spheres, and the duty of authority versus obedience. Examining representations of the queens in a variety of publicly distributed sources such as broadsides, political pamphlets, and images, this poster analyzes public depictions of both Mary II and Anne as gendered bodies fulfilling dual roles as monarchs and women. This work therefore reveals the distinct gendered dimensions informing historical representations of queens, specifically in relation to expectations regarding their role as women. Aiming to question the impact of gender in Early Modern Britain and the response to female monarchy, this work also hopes to promote further recognition of both Mary II and Anne as significant and unique figures.

4. Luwei Chen, MBE

Provincial determinants of life insurance consumption in Canada

Life insurance is a sort of financial security in case of death that make a contract between a life insurance company and a policyholder. Insurance company pays a certain amount of money in the form of income to designated beneficiaries after policyholder pays premiums on the policy period. In the insurance policy, expenditures related to funerals are covered. In fact, there are more than half of the Canadians fear that their deaths would increase the weight of their families’ financial status, which shown in a BMO survey. However, less than half people, 43%, already have or prepare to purchase life insurance in the next year (Marr, 2016). Therefore, in this research I will determinate the relationship between the demand of life insurance and geographical differential by using macro data. In previous research, Sen and Madheswaran (2013) addressed regional determinants of life insurance consumption by analyzing the panel data for 12 selected Asian economies. Instead of analyzing 12 selected Asian economies, I will study at the dataset from 10 provinces and 3 territories of Canada for the period from 2008 to 2016. The dependent variables are insurance penetration, life insurance expenditure as percentage GDP, and insurance density which is the life insurance expenditure per capita. Independent variables will be considered in 2 categories: economic variables and demographic variables. The datasets are available at Statistic Canada and measured by provinces and territories for the period from 2008 to 2016.
5. Valentin Davydov, MBE
What Is The Cost/Benefit of Socially Responsible Investment?

Today Canada's socially responsible investment (SRI) market is experiencing rapid growth. In general, SRI is aimed at providing financial return to investors from firms that fulfill certain social, environmental or corporate governance characteristics such as low level of carbon emissions, anti-corruption policies, etc. More and more Canadian funds are expected to dedicate a certain share of capital to SRI. Thus, top-managers of the funds face the following issue: on the one hand, their main goal is to achieve the maximum rate of return without taking excessive risk, but on the other hand, they are expected to make sustainable investments to bring environmental and social change. This type of investment implies some costs, since the investors deal with restricted portfolios. However, the restriction could also mean that a portfolio would experience reduced volatility. The goal of the proposed research project is to estimate the cost/benefit of socially responsible investment. In other words, I would like to estimate the excess return (alpha) of the portfolio, which is created based on the SRI criteria. As criteria for socially responsible companies I am going to use The Jantzi Social Index (JSI), which consists of 50 Canadian companies that pass broad set of environmental, social and governance criteria.

6. Briann Dorin, MSc Biology
Utilization of remote sensing technology to detect Riesling vineyard variability

A single vineyard block can vary spatially with respect to numerous grapevine and berry variables. If grape-growers can detect this spatial variation, precision agriculture techniques can be applied, which is both economically and environmentally beneficial. Unfortunately, it is currently unfeasible for a grower to constantly test for this variation. However, with recent introductions of remote sensing technologies, growers could potentially utilize this technology to detect their vineyard variation easily and affordably. Remote sensing is defined as the science of obtaining information about an object or area from a distance. For this project, remote sensing is utilized in the form of reading electromagnetic (EM) reflectance from individual grapevines within a vineyard block. Previously, this type of remote sensing was confined to the use of aircraft or satellite imagery, which was both expensive and difficult to access, however, modern technologies enabled increased accuracy, lower costs, and easier data access. My project aims to use two recently introduced remote sensing technologies, ground-based and unmanned aerial vehicles, to detect EM vineyard variation and correlate this variation to agriculturally significant variables (vine health and berry composition). This research will add to the current literature on remote sensing in agriculture as well as the applicability for the industry.

7. Paul Ferrara, MEd
Caring Teachers: Supporting Socio-Emotional Learning Within Elementary Classrooms

School aged children and youth face barriers every day that affect their academic work and have negative implications on their social and emotional domains (Sternberg & Williams, 2010; Wass & Golding, 2014; Shatkin, 2015). The negative implications that are associated with these barriers ultimately impact their academic opportunities and performance in school (Sternberg & Williams, 2010; Shatkin, 2015). Throughout the poster, I explore: what it means to be a caring teacher, how barriers, specifically stress and anxiety, impact student learning, how self-concept affects academic learning, and how the implementation of self-compassion and mediated reading can positively affect a student’s self-concept and self-esteem. Within the Ontario education system, the mandated curriculum is heavily focused on learning and assessing students based on their academic work, and the ability to support students’ other domains of learning is often a secondary thought. Recommendations need to be implemented to integrate socio-emotional learning into the academic curriculum and learning environment. I argue that students’ self-concept, defined as occurring in social, emotional, and motivational domains, need to be supported and developed in a caring environment if they are to be successful and efficient academic learners.

8. Allison Flynn-Bowman, MA Applied Health Sciences
Not just Babysitters, Dads Parent Too: Helping fathers with the transition to fatherhood.

Imagine that you are the father of a newborn. Suddenly, you and your partner are responsible for this life! It can be overwhelming for you, and your relationship! Also imagine that you took the prenatal classes but these focused on the delivery process, and had far fewer details about caring for the infant. Your partner may have been busy reading about caring for this infant but there is less material for you as the father. What if, there was a way you could get simple information, like a text message, with information about caring for your infant, and your partner. This is where my
DadRocks study comes in. I will send fathers messages, such as suggestions of things you can do for your infant, and for your partner. We expect that fathers in our intervention sample will show higher scores on attachment, attitudes, and relationship measures 3 and 6 months after the start of the study, compared to a control group. This will give fathers an intervention that is geared directly to them and I will take their feedback to make modifications for future research designs. It is expected that fathers will like the minimalist intervention, while providing them with information and resources to better support their children.

9. Amanda Hansen, MA Applied Health Sciences

*Father Involvement in Breastfeeding Duration and Exclusivity Rates*

Fathers prescriptive breastfeeding beliefs predict the strengths of their partners breastfeeding intentions. Male partners who strongly believe in breastfeeding longer than six months often have a partner who breastfeeds longer than she initially intended, showing compelling support that intimate partners are an important source of influence on breastfeeding behaviours (Rempel & Rempel, 2004). Types of behaviours for fathers to engage and support breastfeeding include: becoming breastfeeding savvy, directly supporting the breastfeeding moment, providing various forms of instrumental support, and valuing her with direct expression of appreciation and affirmation (Rempel, Rempel, & Moore, 2016). In a randomized controlled trial, Partner Breastfeeding Influence Scale (PBIS) will be used to measure the extent to which the behaviours and activities of fathers influence maternal breastfeeding outcomes (Rempel, Rempel, & Moore, 2016). Control group participants receive usual breastfeeding support in hospital while intervention group participants attend a one-hour group session focused on breastfeeding promotion and breastfeeding teamwork (Rempel & Rempel, 2011) within 36 hours of the infants life. Both groups of fathers will fill out PBIS questionnaires at one, and four months regarding their fathering experience and role in the breastfeeding team, and how they may influence maternal breastfeeding. It is hypothesized that the infants of fathers who received the intervention will be breastfed at least once in hospital and maintain breastfeeding duration and exclusivity up to six months.

10. Jianping Hu, MBE

*Relationship between education level, work experience, and income: effect on quitting the program*

Based on the development of modern society, student now have more chance to obtain high level education. Nowadays, it is generally accepted that students who participate in a Master of Phd will help them gather higher salary than those who go to work after undergraduate. But there are some researchers indicate that attending in co-op program or doing part-time job during undergraduate can also help students get better job. Additionally, even though most of the Master and Phd program provide full funding for students so that they will not meet a big financial problem during their study, some student may still not attend these programs if they take the study time-period into consideration. This paper will mainly focus on the effect on the relationship between education level, work experience, and annual income. This research will also test the effect on whether student who have high education year but not finish (or quit) the program will affect their income when they go to work. In other words, we will see if those who have 11 to 13-year education but quit the program will have higher income to those who have 9 to 10-year education experience.

11. Connor Jakobschuk, MBE

*The Potential Effects of a Minimum Wage Increase*

Minimum wage increases and the effects on the younger demographic in Canada. Motivation: With the recent implementation and controversies surrounding the minimum wage increase in Ontario I want to investigate the potential positive and negative effects that this may have on the younger and less educated demographics. Data on provincial minimum wages is available for download through CANSIM from their inception in each province. As well, through CANSIM there is monthly labour market data (employment, unemployment and participation rates) broken down by gender, age demographic and province through their Labour Force Survey dating back to 1976.

12. Kaitlyn Kerridge, MA Applied Health Sciences

*Inside Out: Understanding How Mindfulness Promotes Good Mental Health Among University Students*

OBJECTIVES: To understand the impact of an in-class meditation practice on the health and well-being of university students. METHODS: Participants were recruited from Phase I of The Mindfulness Experiment. All were 3rd and 4th year undergraduate students studying health sciences who had engaged in an in-class meditation over a 12 week period. A total of 7 participants were recruited and data was collected using focus group interviews (5) and individual interviews (2). RESULTS: Preliminary findings suggest that the in-class meditation had a positive impact on student's mental health
beyond the classroom. Specifically students report using mindfulness practices to help them manage other course and academic responsibilities as well as their social relationships. CONCLUSION: Mindfulness and meditation are effective health promotion tools for mental health among the post-secondary population. Findings suggest that further research and the implementation of mindfulness and meditation programs is a positive approach to battling the mental health epidemic on Canadian campuses.

13. Sarah Krul, MA History  
*An Analyses of Interwar British Gender Norms Using The Private Life of Henry VIII Poster*

The film The Private Life of Henry VIII (1933) was a cultural phenomenon in its time because it was one of the first nationalist British films and has subsequently received considerable attention from 1933 to the present. However, even though the film has been subject to many analyses of the cultural impact of the film, there has been almost no focus on gender’s role in the film. This poster looks at the film’s representations of interwar gender norms in the film’s writing, production, and publicity, along with the ways the film reinforced circulating gender norms. By evaluating the film and its reviews, I outline how each of Henry VIII’s wives aligned with a 1930s feminine archetype, such as the virgin, the mother, the nagging wife, and the unfaithful wife that deserved her fate. By doing so, I highlight what those archetypes say about gender norms and roles in this time. I argue that because the film was a nationalist film, these archetypes reflect accepted gender roles for women in this period and therefore it is an excellent case study to understand gender roles in interwar Britain.

14. Helen Liu, MEd  
*The Impact of Video Games on Gender Socialization and Identity in Adolescence*

My research study aims to explore adolescents’ perception and attitudes towards gender representation in video games, and their beliefs about the degree to which identification with these depictions may influence their notions on gender and self-perception. Video games remain a prevalently consumed medium amongst adolescents, and may harbour the potential to impact the long-term formation of identity due to adolescent individuals’ subconscious assimilation and retention of early exposure to gender roles. The intended result of my study is to ascertain the degree to which varying measures of video game presence in daily life may influence self-identification and the processes by which the identities of others are understood, perceptions of gender, and social development in adolescents. My study aims to interview approximately 10 grade 8 students. The method of data extraction will consist of semi-structured interviews carried out within 30-minute sessions for each student. Early adolescents participating in the study will be given the opportunity to reflect upon their identification, if any, with specific video game characters and how these representations may influence their notions on gender and self-perception. Ultimately, this study aims to facilitate discussion and contribute foundational insights regarding contentious matters of gender and identity associated with video gameplay.

15. Sahana Mahendirarajah, MEd  
*Neocolonialism and Experiential Learning: Impact of Voluntourism in (Post)Colonial Sri Lanka*

An increase in the popularity within voluntourism (volunteering and tourism) can be seen throughout media, social media, and among academic institutions (Tiessen & Huish, 2014). These volunteers abroad programs allow youth to embark on international endeavours (often to developing nations), with the altruistic hopes of helping those they presume need help. Researchers and critics have convincingly argued that these programs carry an alternative agenda with them, one that may covertly reproduce aspects of colonialism in the modern world (MacDonald, 2015; McLennan, 2015). Drawing from my own volunteer abroad experiences, I examine the impact of voluntourism in post war Sri Lanka. Particularly in relation to Sri Lanka recently overcoming a civil war, its reliance on international aid, and its emerging participation in voluntourism (Arambewela & Arambewela, 2010; Vickers & Dominelli, 2014), all of which share a connection to colonial reproduction. Drawing on Nkrumah’s (1965) theory of neocolonialism, I argue that some volunteer abroad programs taking place in Sri Lanka display a form of neocolonialism which hinders self-sustainable development. I also contextualize Lutterman-Aguilar and Gingerich’s (2002) ten critical elements of experiential learning that can aid in the advancement of volunteer abroad programs. I do so with the hope that these programs can push for self-sustainability rather than a reliance on charity, for overt independence rather than covert dependence, and for social transformation rather than social reproduction.
16. Catherine McHugh, MA Applied Disability Studies  
*Behavioral Dentistry: A Literature Review*

Worldwide prevalence rates of cavities ranges between 60% to 90% of children and approximately 100% of adults (WHO, 2012). Given this widespread prevalence of cavities across the lifespan, the Canadian Dental Association (2017) and American Dental Associations (2010) recommend regular dental visits. However, for those fearful of the dentist, regular dental visits can be quite problematic. In this poster, we provide an overview of the current status of research on behavioral dentistry aimed at improving skills associated with participating in routine dental care. Specifically, we review and analyze the treatment strategies evaluated within this literature and provide recommendations for practice. In addition, we discuss potential areas for future research and call for research that can be carried out in a relatively brief amount of time, produce lasting effects that are socially meaningful to parents and other caregivers, and used with a range of individuals (e.g., both children and adults).

17. Jennifer Mooradian, MA Applied Health Sciences  
*Leisure time physical activity and persons living with Down syndrome: a proposed narrative literature review*

Background Inadequate levels of physical activity are a global health issue, particularly for persons with Down syndrome (Luke at al, 1994; Whitt-Glover et al, 2006; Barr & Shields, 2011; Ulrich et al 2011; Esposito et al, 2012; Nordstrom et al 2013; Izquierdo-Gomez et al, 2014). Research has shown levels of leisure time physical activity in persons with Down syndrome to be significantly lower than those in both the general population and persons with non-Down syndrome intellectual disability. Aim: To provide a comprehensive narrative synthesis of previously published research regarding levels of physical activity in persons with Down syndrome. Methods: a search using MEDLINE, PUBMED, CINAHL, and Cochrane will be conducted using the keywords Down syndrome, Trisomy 21, sedentary behaviour, physical activity and exercise from 2008 to February 2018. Criteria for inclusion: articles written in the English language, human participants and available in full text. Key Indexing Terms: down syndrome, trisomy 21, physical activity, exercise, sedentary behaviour

18. Dylan Nadeau, MA History  
*Reform Politics and the Construction of the Second Welland Canal*

The Second Welland Canal was one of the first major public works in Canadian history where British Imperial involvement was minimal. When the recently established United Province of Canada took over ownership of the canal’s construction in 1841, the competency of the new government was tested immediately. Problems such as a division within legislature over the issue of Responsible Government and Britain abolishing the Corn Laws and Navigation Acts that gave preferential treatment to provincial exports made the completion of the canal a difficult task. My current graduate research examines how prominent government officials struggled to complete the canal as they encountered these internal and external obstacles. Unlike most of the historiography surrounding the Welland Canal, my research brings politics to forefront revealing the government’s strengths and weaknesses as well as how its members were able to complete this massive industrial project in such a turbulent period. My poster illustrates that the new government and its members viewed the canal not only as a vital trade route, but also as an important state-building initiative that could ensure the future prosperity of the province as its connection with the British Empire was diminishing.

19. Paul Michael Pilkington, MSc Earth Sciences  
*A Tale of Two Lakes: Rise of the Green Algae*

With continued global development and human population growth, the health of freshwater and their surrounding watersheds are a growing concern. Anthropogenic activities have clearly impacted our freshwater environments and potable water resources, but to what degree? This study uses freshwater algae as biomonitors of human impact in watersheds through space and time. Using the acid-resistant organic-walled microfossils of various algae, a paleo-reconstruction of past environments from two lakes in Eastern Massachusetts illustrate how human impact has dramatically changed both sites. Both sites show a dominance of dinoflagellates and cyanobacteria prior to human arrival and shift towards a green algal dominated assemblage in modern sediments rich in ragweed pollen. Cyanobacteria, which was once believed to be a marker for anthropogenic impact is seen in abundance prior to European settlers. The dominance of green algae is correlated with the burning of fossil fuels, since it begins after the Industrial Revolution. This study illustrates the use of algal remains in “pollen slides” as proxies of both anthropogenic and natural events that occur within a watershed.
20. Sarah Revilla, MA Studies in Comparative Literatures and Arts
(De)mystifying Manhood in Mexico

This Major Research Paper seeks to explore representations of Latino masculinities in a selection of contemporary Mexican films and literature. The philosopher Octavio Paz’s treaty on machismo offers a thorough socio-historical view on Mexican masculinity, which can be traced back to the Spanish Conquest. Nonetheless, further research by scholar Alfredo Mirandé and Aída Hurtado has defied the notion of “macho” as the Latino hegemonic masculinity, thus opening new paths to explore Latino masculinities. Building on Hurtado’s and Mirandé’s intersectional and empirical research and drawing from Judith Butler’s (1999) theory of gender constitution, I seek to examine the depiction of male characters in the films Y tu mamá también (2001) and Amores perros (2000). What is at stake in this research is an understanding of the social construction of masculinities in Mexico and the gender relations which lead the transition from boyhood into manhood. Butler, Judith. Gender Trouble: Feminism and the Subversion of Identity. Taylor & Francis ebooks, 1999.

21. Soheila Belgheis Shahmohammadi, PhD Educational Studies
Pre-service Teachers’ Preparedness to Integrate Technology into Teaching Mathematics

As teaching and learning mathematics has been identified a tough and complicated cognitive endeavor, many instructional technologies have been invented to lessen this challenge for teachers and students. Parallelly, several studies have been conducted to acknowledge the supportive effects of using these instructional tools in improving teaching and learning mathematics. Although these studies have reported the positive impact of innovative technologies in mathematics learning, their usage in teaching and learning mathematics in the classrooms is not widespread. Among factors affecting technology integration into teaching and learning mathematics, how preservice teachers, who are the future math educators, will plan and enact technologically enhanced math learning activities in the classrooms, becomes a critical area to investigate. Several studies indicate that teachers feel inadequately prepared for the subject-specific use of innovative technology and strong theoretical framework need. It seems that more attention needs to be paid to the preparedness of preservice teachers and specifically their training program. Therefore, the main purpose of this study is to investigate preservice teachers’ preparedness and competencies for integrating technology into teaching mathematics.

22. Kenneth Smith, PhD Educational Studies
Mental Health Policy Development in Higher Education

My work highlights the trends in mental health policy development in Canadian universities. Such policy documentation is slow to develop, and too often is only put into effect as a response to tragedy. Modern policy is reactive, not proactive, leading to a potential lack of foresight and misplaced focus. I present elements of a hypothetical framework for future policy development in Ontario universities, based on recommendations from the literature. My recommendations include a renewed focus on communication between on-campus mental health services and educators, establishing a clear procedure for referral. I also caution that an effective policy document is one that does not treat mental health as a disciplinary issue, and distinguishes itself from the university’s code of conduct. It is my hope that this initial research will develop into a fully-fledged policy framework that can help guide universities in their development of mental health policy.

23. Zain Karim Virani, MBE
Interdependence between health, education and family characteristics: Evidence from Pakistan

I have always been intrigued by the power of empirical analysis to decipher causal links between variables. Coming from a developing country where quantitative research in development economics is still in its nascent stages, I would like to take this opportunity to utilize my econometric knowledge to explore the relationship between health and education in Pakistan. I am particularly interested in knowing if there is evidence of a causal effect of education on health status of people living across Pakistan. In doing so, I would also like to see how family background and other socio-economic characteristics work to moderate the relationship between education and health. I intend to use data from the three phases of Demographic and Health Surveys carried out in Pakistan (funded by USAID): 1990-91, 2006-07 and 2012-13. After combining the three sets of data into one, usable panel, I would like to use instrumental variable regression or difference-in difference specification to identify the causal effect of education on health. However, if the assumptions behind these models are not satisfied, I might resort to Ordinary Least Squares (with fixed effects), and interpret the estimated coefficients as correlations instead of causal relationships.
24. Grant Yake, MBE
The effects of Immigration on House Prices in the city of Toronto

For my research project I would look to examine the link between immigration and housing prices in the city of Toronto. I would use the model that was used in the Akbari, Aydede article. They estimated their econometric model with OLS, with the dependent variable being average price for owner-occupied dwellings and with a wide variety of independent variables. Once again similar to the article by Akbari and Aydede I will use panel data from the population censuses but for years 2006, 2011 and 2016. Upon reviewing the independent variables and the Canadian census data for the mentioned years, most of the data is available. However, some of the variables are constructed as a ratio, so I will have to manipulate and create these variables myself using the data available on Statistics Canada.
13th Annual Mapping The New Knowledges 2018 Committee

Dr. Diane Dupont, Interim Dean, Faculty of Graduate Studies, would like to express her gratitude to the 2018 MNK organizing committee.

Lauryn Carrick  
*Communications, Marketing & Recruitment Coordinator, Faculty of Graduate Studies*

Evans Boadi  
*Graduate Students’ Association*

Kimberley Gammage  
*Associate Professor, Faculty of Applied Health Sciences*

Luiza Guimaraes Santos  
*Graduate Student Skills Development Coordinator, Goodman School of Business*

Stacia Heaton  
*Graduate Officer, Development and Training, Faculty of Graduate Studies*

Caroline Moffatt  
*Executive Assistant to the Dean, Faculty of Graduate Studies*

Francesca Patten  
*Graduate Students’ Association*

Gail Pepper,  
*Director, Faculty of Graduate Studies*

Mike Plyley,  
*Professor, Faculty of Applied Health Sciences*

Snezana Ratkovic,  
*Research Officer & Instructor, Faculty of Education*

Christine Tardif-Williams,  
*Professor, Faculty of Social Sciences*

Elizabeth Vlossak,  
*Associate Professor, Faculty of Humanities*
MNK 2018 Concurrent Sessions Room Assignments

<table>
<thead>
<tr>
<th>Room Numbers</th>
<th>Concurrent Session #1 (9-10:40 a.m.)</th>
<th>Concurrent Session #2 (1:20-3 p.m.)</th>
<th>Concurrent Session #3 (3:50-5:10 p.m.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plaza 308</td>
<td>1d</td>
<td>2b</td>
<td>3b</td>
</tr>
<tr>
<td>Plaza 311</td>
<td>1b</td>
<td>2d</td>
<td>3d</td>
</tr>
<tr>
<td>Plaza 408</td>
<td>1e</td>
<td>2e</td>
<td>3e</td>
</tr>
<tr>
<td>Plaza 409</td>
<td>1a</td>
<td>2a</td>
<td>3a</td>
</tr>
<tr>
<td>Plaza 410</td>
<td>1c</td>
<td>2c</td>
<td>3c</td>
</tr>
<tr>
<td>Plaza 411</td>
<td>1f</td>
<td>2f</td>
<td>-</td>
</tr>
<tr>
<td>Cairns 207</td>
<td>1g</td>
<td>2g</td>
<td>-</td>
</tr>
</tbody>
</table>

Plaza Level 300 Floorplan

Plaza Level 400 Floorplan