

Brandon Craig, BSc (Honours)
MD/PhD Candidate, Neuroscience
Cumming School of Medicine, University of Calgary
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EDUCATION

- 2017 - **Doctor of Medicine (MD) & Doctor of Philosophy (PhD) Joint Degree**
Cumming School of Medicine, University of Calgary
PhD Department: Clinical Neuroscience, University of Calgary
PhD Supervisor: Adam Kirton, MD/MSc, FRCPC
PhD Defended: June 18th, 2021
Thesis Title: Understanding the role of the non-lesioned hemisphere in children with perinatal stroke and hemiparetic cerebral palsy.
- 2013-2017 **Bachelor of Science (Honours)** in Psychology, MacEwan University
Supervisor: Christopher Striemer, PhD
Thesis Title: Modulation of covert reflexive attention by transcranial direct current stimulation (tDCS) of the cerebellum.

AWARDS/RECOGNITIONS (n= 29, Total to date: \$481,197)

National

- 2021-2024 CIHR Leaders in Medicine Scholarship, \$66,000
2019-2022 CIHR Vanier Graduate Scholarship, \$150,000
2019-2022 CIHR Frederick Banting and Charles Best CGS Doctoral Award, \$105,000 (*Declined*)
2019 Co-Chairs Award of Innovation, *Canadian Stroke Congress 2019*
2016 NSERC Undergraduate Student Research Award, \$5,625

Provincial/University

- 2022 Dr. Lydia Sikora Memorial Award, \$4,300
2021 J.B. Hyne Research Innovation Award, \$500
2021 ACHRI Publication Award, \$500
2020 Graduate College Scholar, \$1,000
2020 Jon Meddings Leadership Award, \$1,000
2019 Graduate Citizenship Award, \$2,000
2018-2021 Cumming School of Medicine Graduate Scholarship, \$120,000 (*accept \$5K topup in 2019*)
2017-2018 Queen Elizabeth II Graduate Scholarship, \$10,800 (*Declined in 2018*)
2018 Emerging Leadership Award Finalist
2017 President's Medal of Academic Success & Student Leadership
2017 MacEwan Board of Governors' Scholarship, \$2,000
2017 Best Oral Thesis Defense, \$50
2016 Louise McKinney Post-Secondary Scholarship, \$2,500
2016 BSc Continuing Scholarship, \$1,700
2016 Eric & Lorraine Young Leadership Award, \$2,200
2016 Award of Recognition (MacEwan Ambassador Program)
2015 BSc Continuing Scholarship, \$1,000
2015 Jason Lang Scholarship, \$1,000
2013 BSc Entrance Scholarship, \$1,000

Travel

- 2020 Medical Trainee Fund Travel Award, \$622
2019 Alberta Children's Hospital Research Institute Travel Award, \$500
2019 Kids Brain Health Network Spring Travel Award, \$500
2019 Medical Trainee Fund Travel Award, \$600
2018 Graduate Travel Award, \$800

PUBLICATIONS (n=11; Co-supervised students underlined)

1. **Craig BT**, Kinney-Lang E, Hilderley AJ, Carlson HL, Kirton A. (2022) Structural connectivity of the sensorimotor network within the non-lesioned hemisphere of hemiparetic children with perinatal stroke. [in press, *Scientific Reports*]
2. Larsen N, **Craig BT**, Hilderley AJ, Virani S, Murias K, Brooks BL, Kirton A, Carlson HL (2021). Frontal interhemispheric structural connectivity, attention, and executive function in children with perinatal stroke. *Brain and Behavior*, e2433.
3. Grohs M, Lebel C, Carlson HL, **Craig BT**, Dewey D. (2021). Subcortical brain structure in children with developmental coordination disorder: A T1-Weighted Volumetric Study. *Brain Imaging and Behavior*, 1-10.
4. Kirton A, Metzler M, **Craig BT**, Hilderley A, Dunbar M, Giuffre A, Zewdie E, Carlson HL. (2021) Perinatal stroke: Mapping and modulating developmental plasticity to optimize outcomes. *Nature Reviews Neurology*, 1-18.
5. **Craig BT**, Morrill A, Anderson B, Danckert J, & Striemer C. (2021). Cerebellar strokes impair both spatial and non-spatial attention. *Cortex*, 139,27-42.
6. **Craig, BT**, Hilderley A, Kirton A, & Carlson HL (2021). Imaging Developmental and Interventional Plasticity Following Perinatal Stroke. *Canadian Journal of Neurological Sciences*, 48(2), 157-171.
7. Grohs, M. N., **Craig, B. T.**, Kirton, A., & Dewey, D. (2020). Effects of Transcranial Direct Current Stimulation on Motor Function in Children 8–12 Years With Developmental Coordination Disorder: A Randomized Controlled Trial. *Frontiers in Human Neuroscience*, 14.
8. Carlson, H. L., **Craig, B.T.**, Hilderley, A. J., Hodge, J., Rajashekar, D., Mouches, P., ... & Kirton, A. (2020). Structural and functional connectivity of motor circuits after perinatal stroke: A machine learning study. *NeuroImage: Clinical*, 28, 102508.
9. **Craig BT**, Hilderley A, Kinney-Lang E, Long X, Carlson HL, & Kirton A. (2020). Developmental neuroplasticity of the white matter connectome in children with perinatal stroke. *Neurology*, 95(18), e2476-e2486.
10. **Craig BT**, Carlson H, & Kirton A. (2019). Thalamic diaschisis following perinatal stroke is associated with clinical disability. *NeuroImage: Clinical*, 21, 101660.
11. **Craig BT**, Olsen C, Mah S, Carlson H, Wei X, & Kirton A. (2019). Crossed cerebellar atrophy in perinatal stroke. *Stroke*, 50(1): 175-177.

PUBLISHED ABSTRACTS (Co-supervised students underlined; awards italicized)

1. Dunbar M, Norris A, **Craig BT**, Mohammad K, Esser M, Carlson HL, Kirton A (2021). Neonatal stroke is not associated with birth trauma. *International Stroke Conference (virtual)*, March 17-19, 2021.
2. Shinde K, **Craig BT**, Hassett JD, Kirton A, Carlson HL (2021). Bilateral developmental alterations in cortical morphology in children with perinatal stroke. *International Stroke Conference (virtual)*, March 17-19, 2021.
3. **Craig BT**, Hilderley A, Carlson HL, Kirton A. (2020) Cortico-ponto-cerebellar tractography in perinatal stroke. *International Stroke Conference, Los Angeles, CA, USA*.
4. **Craig BT**, Hilderley A, Carlson H, Kirton A. (2019) *Global structural connectivity of the contralesional hemisphere is associated with clinical function in hemiparetic children with perinatal stroke. Canadian Stroke Congress, Ottawa, ON, CAN. – Co-Chairs Award of Innovation*
5. Striemer C, **Craig B**, Morrill A, Botha N, Anderson B, & Danckert J. (2018). Cerebellar contributions to spatial and non-spatial attention. *Canadian Association for Neuroscience Satellite Symposium, Vancouver, BC, CAN*.
6. **Craig B** & Striemer C. (2017). Modulation of covert reflexive attention by transcranial direct current stimulation (tDCS) of the cerebellum, *MacEwan University Research Day, Edmonton, AB, CAN*.
7. **Craig B**, Anderson B, Danckert J, & Striemer C. (2017). Cerebellar lesions impair reflexive but not voluntary covert attention, *MacEwan University Research Day, Edmonton, AB, CAN*.
8. Striemer C, **Craig B**, Anderson B, & Danckert J. (2017). Cerebellar contributions to reflexive and voluntary covert visual attention, *Cognitive Neuroscience Society, San Francisco, CA, USA*.

INVITED TALKS/LECTURES

1. **Craig B.** (2020) Understanding developmental structural neuroplasticity in children with perinatal stroke using advanced MRI techniques. *Hotchkiss Brain Institute Research Day 2020, Calgary, AB.* (postponed due to COVID-19)
2. **Craig B.** (2019) Advanced clinical neuroimaging in cerebral palsy. *Translational and Precision Medicine Journal Club, Calgary AB.*
3. **Craig B.** (2019) Developmental neuroplasticity of the structural connectome in children with perinatal stroke and hemiparetic cerebral palsy. *Sam Darwish Symposium on Neurodevelopmental Disorders, Calgary, AB.*
4. **Craig B.** (2019). Structural neuroplasticity in children with perinatal stroke. *Advanced Imaging Seminar, Calgary, AB.*
5. **Craig B.** (2019). Global structural connectivity of the contralesional hemisphere is associated with clinical function in hemiparetic children with perinatal stroke. *Alberta Imaging Symposium, Calgary, AB.*
6. **Craig B.** (2019). Research update: Neuroimaging in perinatal stroke. *Calgary Pediatric Stroke Program Parent Support Group, Calgary, AB.*
7. **Craig B.** (2019). Clinical applications of advanced neuroimaging in children. *Owerko Neurodevelopmental Rounds, Calgary, AB.*
8. **Craig B.** (2018). Neuroimaging biomarkers of perinatal stroke outcomes. *Neuromotor Rounds, Calgary, AB.*
9. **Craig B.** (2018). Optimizing recovery from perinatal and geriatric stroke: Various applications of brain stimulation. *MacEwan University, Edmonton, AB.*
10. **Craig B.** (2018). Stimulating the brains of pediatric stroke survivors. *TEDx MacEwanU, Edmonton, AB.*

PAPERS IN PREPARATION (Co-supervised students underlined)

1. Striemer C, Angus-Cook B, Craig BT, Botha N, Morrill A. (2021). Transcranial direct current stimulation to the left cerebellum influences reflexive covert attention. [under review, *Cerebellum*]
2. **Craig BT**, Geeraert B, Kinney-Lang E, Hilderley AJ, Yeates K, Kirton A, Noel M, MacMaster FP, Bray S, Barlow K, Brooks BL, Lebel C, Carlson HL. (2021). Structural brain network lateralization across childhood and adolescence. [under review, *Human Brain Mapping*]
3. Hassett J, Carlson HL, **Craig BT**, Kirton A. (2021) T1/T2 ratios: Investigating myelination in perinatal stroke patients. [under review, *NeuroImage: Clinical*]
4. Shinde K, **Craig BT**, Hassett J, Kirton A, Carlson HL. (2021) Alterations in Cortical Morphometry in Children with Perinatal Stroke [under review, *NeuroImage: Clinical*]
5. Norris A, Dunbar M, **Craig BT**, Mohamed K, Carlson HL, & Kirton A. (2021) Birth trauma does not cause perinatal arterial ischemic stroke. [in preparation]

RESEARCH TRAINING/EXPERIENCE

2017 - **PhD Thesis**, University of Calgary
2017 - **MRI Operator** (Level 2), Child & Adolescence Imaging Research
2017 - **TMS Operator** (Level 2), Non-Invasive Neurostimulation Network
2018-2019 **Research Associate**, Cumming School of Medicine – Science Communication
2015-2017 **Research Assistant**, MacEwan University, Cognitive Psychology
2015-2017 **Undergraduate Honours Thesis**, MacEwan University
2017 **Neuroimaging Analysis**, University of Western Ontario
2017 **Independent Study Research Student**, MacEwan University, Perinatal Stroke
2016 **Research Assistant**, MacEwan University, Neurophysiology
2016 **NSERC Undergraduate Researcher**, University of Waterloo/MacEwan University

WORKING PROJECTS & COLLABORATIONS

- 1. Optimizing treatment outcomes for infants with recurrent nodular desmoplastic medulloblastoma.**
Collaborators: Dr. Lafay-Cousin
Description: As the lead student-researcher, I am retrospectively analyzing a recently completed clinical trial to assess what the best treatment options were for infants with recurrent nodular desmoplastic medulloblastoma, with a main outcome of generating a new treatment protocol.
Role: Retrospectively analyze clinical trial data, complete statistical analysis comparing differing treatments throughout the world, leading manuscript writing.
- 2. Developmental neuroplasticity of the structural connectome in perinatal stroke (PhD Thesis).**
Collaborators: Drs. Kirton, Carlson, Hilderley, & Kinney-Lang
Description: As lead student-researcher, I investigate the influence of the non-lesioned hemisphere on brain development in children with perinatal stroke using advanced neuroimaging techniques.
Role: Run the MRI at the Alberta Children's Hospital for data collection, develop processing code/scripts, quality check and process MRIs, lead statistical analysis leading manuscript writing.
- 3. Asymmetries of the developing white-matter connectome in typically developing children.**
Collaborators: Drs. Kirton, Lebel, Carlson, MacMaster, Noel, Bray, Barlow, Brooks, & Yeates
Description: As lead student-researcher, I lead the first Alberta Children's Hospital-wide collaboration and collected scans from all PIs using diffusion MRI. Here, I lead the collaboration investigating structural differences between the left and right hemisphere in developing pediatric populations.
Role: Write ethics application and data sharing agreement, collect MRIs from collaborators, develop all processing code/scripts, process all MRIs, lead statistical analysis, lead manuscript writing.
- 4. Brain stimulation alters the white-matter connectome in perinatal stroke survivors.**
Collaborators: Drs. Kirton and Carlson
Description: As lead student-researcher, I explore how interventional therapies, both occupational therapies and non-invasive brain stimulation, influence structural connectivity in children with perinatal stroke.
Role: Run the MRI at the Alberta Children's hospital for data collection, develop processing code/scripts, quality check and process MRIs, lead statistical analysis.
- 5. Biomarkers of developmental coordination disorder (DCD)**
Collaborators: Ms. Gross, Drs. Dewey & Kirton
Description: As a collaborator, I help examine how the brains of children with DCD differ from typically developing peers and how non-invasive brain stimulation may help improve rehabilitative strategies.
Role: Run the MRI at the Alberta Children's Hospital for data collection, assist in statistical analysis, manuscript editing.
- 6. Birth trauma in perinatal stroke**
Collaborators: Ms Norris and Drs. Dunbar, Mohammad, Carlson & Kirton.
Description: As a collaborator, I help explore the question of how trauma during birth does not influence whether a newborn has a stroke.
Role: Assist in methods development, assist in statistical analysis.
- 7. Multimodal neuroimaging following mild traumatic brain injury (mTBI) in adolescents**
Collaborators: Ms de Jesus, Ms Ofoghi, Ms Sabourin, Ms Godfrey, & Dr. Esser
Description: As a collaborator, I help investigate structural changes in children with mTBI and post-concussive symptoms.
Role: Run the MRI at the Alberta Children's Hospital, developed all imaging processing code/scripts to process diffusion and anatomical MRIs, assist in troubleshooting.

8. Structural connectivity of neuropsychiatric symptoms (NPS) in association with cognitive decline and dementia

Collaborators: Ms Gill, Ms McCreary, & Drs. Smith and Ismail

Description: As a collaborator, I help investigate how the structural or white-matter connectome is altered and can predict neuropsychiatric symptoms in adults with cognitive decline and/or dementia.

Role: Developed all imaging processing code/scripts to process diffusion and anatomical MRIs, assist in troubleshooting, assist in statistical analysis.

9. Connectome analysis in adults with Transient Ischemic Attacks

Collaborators: Drs. Carlson & Barber

Description: As a collaborator, I help examine how the structural connectivity can influence and predict clinical cognitive outcomes.

Role: Developed all imaging processing code/scripts, assist in statistical analysis.

PRESENTATIONS (Co-supervised students underlined; awards italicized)

1. Olesen A, Geeraert B, **Craig BT**, Carlson HL, Kirton A (2021). Microstructure of white matter pathways and manual performance in perinatal stroke. *HBI Summer Student Symposium, Calgary AB.*
2. Bell S, **Craig BT**, Kirton A, Carlson HL (2021). Developmental plasticity of the visual system following perinatal stroke. *HBI Summer Student Symposium, Calgary AB.*
3. Dhanoa A, Metzler M, **Craig BT**, Kirton A, Carlson HL (2021). Structural connectivity of sensory tracts is associated with reaching performance in children with perinatal stroke. *HBI Summer Student Symposium, Calgary AB.*
4. Dunbar M, Norris A, **Craig BT**, Mohammad K, Esser M, Carlson HL, Kirton A (2021). Neonatal stroke is not associated with birth trauma. International Stroke Conference (virtual), March 17-19, 2021.
5. Shinde K, **Craig BT**, Hassett JD, Kirton A, Carlson HL (2021). Bilateral developmental alterations in cortical morphology in children with perinatal stroke. *International Stroke Conference (virtual), March 17-19, 2021.*
6. Hassett JD, Carlson HL, **Craig BT**, Kirton A (2020). T1/T2 Ratios: Investigating myelination in perinatal stroke populations. *Organization of Human Brain Mapping (OHBM), Montreal QC (online), June 26-30, 2020.*
7. Carlson HL, **Craig BT**, Hodge J, Rajashekar D, Mouches P, Forkert ND, Kirton A (2020). Neuroimaging predicts personalized motor function after perinatal stroke: A machine learning study. *Organization of Human Brain Mapping (OHBM), Montreal QC (online), June 26-30, 2020.*
8. Carlson HL, **Craig BT**, Hodge J, Rajashekar D, Mouches P, Forkert ND, Kirton A (2020). Neuroimaging predicts personalized motor function after perinatal stroke: A machine learning study. *Whistler Connectivity Workshop, Whistler BC, March 1-4, 2020*
9. **Craig BT**, Hilderley A, Carlson HL, Kirton A. (2020). *Cortico-Ponto-Cerebellar Structural Connectivity in Perinatal Stroke. International Stroke Congress 2020, Los Angeles, USA. Professor Led-Poster Tour.*
10. **Craig BT**, Hilderley A, Kinney-Lang E, Carlson HL, Kirton A. (2019) Global structural connectivity in perinatal stroke. *Clinician-Investigator Trainee Association of Canada & Canadian Society for Clinical Investigation Annual General Meeting, Banff, AB.*
11. **Craig BT**, Hilderley A, Kinney-Lang E, Carlson HL, Kirton A. (2019) Global structural connectivity of the contralesional hemisphere is associated with clinical function in hemiparetic children with perinatal stroke. *11th Annual Leaders In Medicine Research Symposium, Calgary, AB.*
12. **Craig BT**, Hilderley A, Carlson H, Kirton A. (2019) *Global structural connectivity of the contralesional hemisphere is associated with clinical function in hemiparetic children with perinatal stroke. Canadian Stroke Congress, Ottawa, ON. – Co-Chairs Award of Innovation*
13. Hilderley A, Duszynski C, Carlson H, **Craig BT**, Dunn J, Kirton A. (2019) Functional near infrared spectroscopy as an assessment of developmental and interventional plasticity in children with perinatal stroke. *Canadian Stroke Congress, Ottawa, ON.*

14. Norris A, Carlson HL, **Craig BT**, Hilderley A, Kirton A. (2019) The role of birth trauma in neonatal arterial ischemic stroke. *Alberta Children's Hospital Research Institute Summer Student Research Day, Calgary, AB.*
15. Shinde K, Carlson HL, **Craig BT**, Hasset J, Kirton A. (2019) Assessment of cortical thickness variations in perinatal stroke by surface-based morphometry. *Alberta Children's Hospital Research Institute Summer Student Research Day, Calgary, AB.*
16. Larsen N, **Craig BT**, Hilderley A, Virani S, Brooks BL, Kirton A, Carlson HL. (2019) White matter microstructure of frontal circuits and executive functioning after perinatal stroke. *Alberta Children's Hospital Research Institute Summer Student Research Day, Calgary, AB.*
17. Paffrath B, Carlson HL, Hilderley A, **Craig B**, Kinney-Lang E, Duszynski C, Kirton A. (2019) Evaluating resting-state functional connectivity using functional near-infrared spectroscopy in children with hemiplegic cerebral palsy. *Hotchkiss Brain Institute Summer Research Day, Calgary, AB.*
18. **Craig B**, Hilderley A, Long X, Kirton A, Carlson H. (2019) Global structural connectivity of the contralesional hemisphere is associated with clinical function in hemiparetic children with perinatal stroke. *Vi Riddell Pediatric Rehabilitation Research Symposium, Calgary, AB.*
19. **Craig B**, Hilderley A, Long X, Kirton A, Carlson H. (2019) White-matter connectome neuroplasticity in perinatal stroke relates to clinical motor function. *Organization of Human Brain Mapping, Rome, Italy.*
20. Hilderley A, **Craig B**, Hasset J, Kirton A, Carlson H. (2019) Focal corticospinal tract abnormalities in children with perinatal stroke. *Organization of Human Brain Mapping, Rome, Italy.*
21. **Craig B**, Carlson H, Kirton A. (2018). Thalamic diaschisis following perinatal stroke and its relationship to clinical motor function. *International Child Neurology Congress, Mumbai, India.*
22. Shinde K, Carlson H, **Craig B**, Hasset J, Kirton A (2018) Assessment of cortical thickness variations in perinatal stroke by grey matter voxel-based morphometry. *Hotchkiss Brain Institute Summer Research Day, Calgary, AB.*
23. Shinde K, Carlson H, **Craig B**, Hasset J, Kirton A (2018) Assessment of cortical thickness variations in perinatal stroke by grey matter voxel-based morphometry. *Alberta Children's Hospital Research Institute Summer Student Symposium, Calgary, AB. – Best Poster Award*
24. **Craig B**, Carlson H, Kirton A. (2018) Thalamic plasticity following perinatal stroke. HBI Research Day 1-Minute Data Blitz, Calgary AB.
25. **Craig B**, Carlson H, Kirton A. (2018) Thalamic diaschisis following perinatal stroke and its relation to clinical motor function. Hotchkiss Brain Institute Conference, Calgary, AB.
26. **Craig B**, Carlson H, Kirton A. (2018) Thalamic diaschisis following perinatal stroke related to clinical motor function. *Cumming School of Medicine Radiology Research Day, Calgary, AB.*
27. **Craig B**, Carlson H, Kirton A. (2018) Thalamic diaschisis following perinatal stroke and its relation to clinical motor function. *Alberta Children's Hospital Research Institute (ACHRI) Symposium, Calgary, AB.*
28. Angus-Cook B, **Craig B**, & Striemer C. (2018). Cerebellar tDCS influences the onset of inhibition of return. *Banff Annual Seminar in Cognitive Sciences, Banff, AB.*
29. **Craig B**, Carlson, H, & Kirton A (2018). Developmental neuroplasticity of the structural connectome in children with perinatal stroke. *Child & Adolescence Imaging Research Symposium, Calgary, AB.*
30. **Craig B**, Carlson, H, & Kirton A (2018). Developmental neuroplasticity of the structural connectome in children with perinatal stroke. *Brain Functional Organization, Connectivity, and Behavior, Whistler, BC.*
31. Gill S, **Craig B**, McCreary C, Smith E, & Ismail Z (2018). Structural connectivity of neuropsychiatric symptoms (NPS) in associated with cognitive decline and dementia, *Littmann Research Day, Calgary, AB.*
32. **Craig B**, Carlson H, & Kirton A (2017). Developmental and interventional neuroplasticity of the structural connectome in children with perinatal stroke. *Pediatric Rehabilitation Research Symposium, Calgary, AB.*
33. **Craig B**, Anderson B, Danckert J, & Striemer C (2017). Cerebellar lesions slow the onset of inhibition of return. *Banff Annual Seminar in Cognitive Science (BASICS), Banff, AB.*
34. **Craig B** & Striemer C (2017). Modulation of covert reflexive attention by transcranial direct current stimulation (tDCS) of the cerebellum, *MacEwan University Research Day, Edmonton, AB.*
– Best Presentation Award

35. **Craig B**, Anderson B, Danckert J, & Striemer C (2017). Cerebellar lesions impair reflexive but not voluntary covert attention, *MacEwan University Research Day, Edmonton, AB*.
36. Striemer C, **Craig B**, Anderson B, & Danckert J (2017). Cerebellar contributions to reflexive and voluntary covert visual attention, *Cognitive Neuroscience Society, San Francisco, CA, USA*.
37. **Craig B**, Anderson B, Danckert J, & Striemer C (2017). Cerebellar lesions impair reflexive but not voluntary covert attention, *Prairie-Perception, Action, Cognition Team Conference, Canmore, AB*.
38. **Craig B** & Striemer C (2016). Can transcranial direct current stimulation (tDCS) affect reflexive covert attention? *MacEwan In-House Conference, Edmonton, AB*.

TEACHING EXPERIENCE

- 2021 **Lecturer**, Advanced Magnetic Resonance Imaging, University of Calgary
 2020 **Lecturer**, Senior-Year Neuropathology, Mount Royal University
 2019 **Lecturer**, White-matter Neuroimaging Seminar, University of Calgary
 2016-2017 **Teaching Assistant**, Department of Psychology, MacEwan University
 Cognitive Psychology, Human Neuropsychology

SUPERVISORY EXPERIENCE

- 2019- **Mr. Jordan Hassett** – University of British Columbia BSc Student (*Co-supervisor*)
“T1/T2 imaging in perinatal stroke.”
Awards: AIHS Summer Studentship (\$6,000)
- 2019- **Ms. Nicole Larsen** – University of Calgary BSc Psychology Student (*Co-supervisor*)
“White-matter tractography of the anterior forceps in children with unilateral perinatal stroke”
Awards: AIHS Summer Studentship (\$6,000)
- 2019- **Ms. Abbey Norris** – University of Western Ontario Health Sci Student (*Co-supervisor*)
“The role of birth trauma in neonatal arterial ischemic stroke”
- 2018- **Mr. Karan Shinde** – University of Calgary BSc Biology Student (*Co-supervisor*)
“Differences in cortical thickness of motor cortical regions following perinatal stroke”
Awards: Best Poster Presentation ACHRI Research Day, AIHS Summer Studentship (\$6,000).
- 2019 **Ms. Mary Kate Dichoso** – University of Calgary BSc Psychology Student (*Co-supervisor*)
“White-matter connectome hemispheric asymmetry in typically developing children.”
- 2019 **Mr. Brett Paffrath** – University of Calgary BSc Biology Student (*Co-supervisor*)
“Evaluating functional connectivity using near-infrared spectroscopy in children with hemiparetic cerebral palsy.”
- 2018-2019 **Ms. Noah Reaume** – University of Calgary BSc Psychology Student (*Co-supervisor*)
“White-matter connectome in patients with transient ischemic attacks”

CAMPUS INVOLVEMENT

- 2022 **President**, Leaders in Medicine Program, University of Calgary
 2021 **Co-Chair**, Leaders in Medicine Program, University of Calgary
 2020-2021 **Graduate Student Representative**, Leaders in Medicine Program, University of Calgary
 2019-2020 **President**, Hotchkiss Brain Institute Trainee Organization
 2017-2020 **Committee Member**, Outreach Committee, Hotchkiss Brain Institute Trainee Organization, University of Calgary
 2017-2020 **Committee Member**, Mental Health & Wellness Committee, University of Calgary Graduate Student Association
 2018-2019 **Director**, Orientation Committee, Hotchkiss Brain Institute Trainee Organization, University of Calgary.
 2017-2018 **Committee Member**, Orientation Committee, Hotchkiss Brain Institute Trainee Organization, University of Calgary
 2015-2017 **Vice-President** (re-elect), MacEwan Health Promotion

- 2015-2017 **MacEwan Ambassador**, MacEwan University
2016-2017 **Student Representative & Voting Member**, MacEwan University Research Ethics Board

RELATED VOLUNTEER EXPERIENCE

- 2019 - 2020 **Volunteer**, Rotary Flames House, Calgary, AB
2018 - 2020 **Founder & Director**, '4 StAGES of Science'
A website platform aimed to bridge the gap between researchers and the general public.
Funding received from HBI/HBITO.
2016 - 2017 **Family Liaison**, Intensive Care Unit, Royal Alexandra Hospital, *Edmonton, AB*
2015 - 2017 **Chef**, Hope Mission Meal Service, *Edmonton, AB*
2014 - 2016 **Volunteer**, Anatomic Pathology Lab, Royal Alexandra Hospital, *Edmonton, AB*
2015 **Speaker**, Volunteer Resources, Alberta Health Services, *Edmonton, AB*
2012 - 2014 **Assistant Coach**, Maple Leaf Athletic Club Bantam AAA, *Edmonton, AB*

EVENT ORGANIZATION

- 2021 **COVID-19 Vaccination Information Update**, University of Calgary Graduate College
An event aimed to provide awareness of COVID-19 vaccinations to University of Calgary graduate students.
2019 **Event Organizer**, Brain Bee Competition
National high school neuroscience competition hosted at the University of Calgary.
2018 **Event Organizing Committee Member**, Campus Alberta Neuroscience Annual Symposium
Designated to find and invite clinical neuroscience keynote speakers, accept clinical trainee presentations and posters, and help organize the symposium.
2018 **Event Volunteer**, 'Cooking Class with Campus Community Kitchen'
Event aimed to help teach graduate students how to cook an affordable and healthy meal.
2018 **Event Organizer**, 'Speed-Friending'
Helped develop a networking event for graduate students of the U of C to promote building friendships and a positive support system.
2018 **Event Organizer**, 'Brain Bee Competition'
National high school neuroscience competition hosted at the University of Calgary.
2017 **Event Volunteer**, 'Paint Night'
Helped prepare a paint night for graduate students at the University of Calgary to promote a healthy mental hygiene as part of the MH&W Committee of the U of C GSA.
2017 **Event Director**, 'Holmes for YESS'
Silent auction which raised \$1,795 for the Youth Empowerment & Support Services in Edmonton, Alberta.
2016 **Event Director**, 'Music for MSF'
Silent auction with performances from various local artists which raised \$1,000 for Doctors Without Borders.
2016 **Event Co-Director**, 'Operation Christmas'
Raised \$625 to fill shoeboxes filled with toys and necessities to underprivileged children across the globe.
2016 **Event Director**, 'Trauma Informed Care'
President of Pediatrics for the Alberta Medical Association, Dr. Tami Masterson, informed students and staff around the university about medical issues that are currently happening locally.

WORK EXPERIENCE

- 2015 - 2018 **Statistician & Player Development Coordinator**, Edmonton Oilers Hockey Club of the National Hockey League (NHL)