Erin L. Mazerolle, PhD — CURRICULUM VITAE

Contact

Annex 110B
Department of Psychology
St. Francis Xavier University
Antigonish, Nova Scotia
http://www.erinmazerolle.com
emazerol@stfx.ca
902-867-1641

Research Interests

Reproducibility in brain imaging research

Neurovascular relations in the human brain

Cerebrovascular reactivity

White matter imaging

Neuroscience knowledge translation

Appointments

St. Francis Xavier University

Assistant Professor (tenure-track)	Psychology	2020-07-01 to present
Cross-appointment	Computer Science	2021-07-01 to 2023-07-01
Dalhousie University Adjunct (Graduate Studies)	Psychology and Neuroscience	2022-12-01 to 2025-06-30
University of Victoria Affiliate (Graduate Studies)	Psychology	2021-04-30 to 2024-06-30

Education

2012-2020 **Postdoctoral researcher**
Advisor: Prof. Bruce Pike
Hotchkiss Brain Institute and Radiology, University of Calgary
Neurology & Neurosurgery, McGill University

2008-2012 **PhD, Psychology/Neuroscience, Dalhousie University**
Supervisor: Prof. Ryan D'Arcy
Thesis: *Refinements to the understanding of functional MRI activation in white matter*

2005-2007 **MSc, Psychology/Neuroscience, Dalhousie University**
Supervisor: Prof. Ryan D'Arcy
Thesis: *Detecting interhemispheric transfer across the corpus callosum using high field functional magnetic resonance imaging*

2001-2005 **BSc (first class honours), Neuroscience & Computer Science, Dalhousie University**
Supervisor: Prof. Ryan D'Arcy
Thesis: *Electrophysiological characterization of temporal lobe activation during visual object recognition*

Research Grants

2022-2027 Canadian Foundation for Innovation John R. Evans Leaders Fund (**CFI JELF**)
Neurovascular Research Infrastructure for Improving Brain Health
Mazerolle EL (PI)
$174 661

2022-2023 StFX Students' Union OER Grant
Development and evaluation of an OER for a cognitive neuroscience course
Mazerolle EL (PI), Barker C, Hughes J
$7 575

2021-2026 Natural Sciences and Engineering Council of Canada Discovery Grant (**NSERC DG)**
Improving reproducibility of functional magnetic resonance imaging
Mazerolle EL (PI)
$140 000 + $12 500 Discovery Launch Supplement

2021-2023 University Council for Research-Category A, St. Francis Xavier University
Improving reproducibility of functional magnetic resonance imaging
Mazerolle EL (PI)
$7 000

2022-2023 Change Lab Action Research Initiative (CLARI) Grant
Sharing the neuroscience of living with housing instability
Mazerolle EL (co-PI), Barker C (co-PI)
$7 500

2022-2023 MITACS Accelerate
Developing a knowledge translation activity to share the neuroscience of living with housing instability
Mazerolle EL (co-PI), Barker C (co-PI)
$10 687 (total project $15 000; difference contributed by partner organization)

2022-2023 **SSHRC** Institutional Grant (SIG)
Barker C (PI), **Mazerolle EL**, Carter E
Informing foster care transitions with the neuroscience of emerging adulthood
$7 000

2021-2024 Canadian Institutes for Health Research (**CIHR**) Project Grant
Does menthol affect nicotine's impact on brain reinforcement mechanisms in dependent and nondependent users of electronic nicotine delivery systems?
Barrett S (PI), Al-Hamdani M, **Mazerolle EL**, Newman AJ, Perry R
$370 000

2021-2022 National Research Council Industrial Research Assistance Program (**NRC-IRAP**)
Budding journalism: An exploration of zine creation and its benefits among children through the use of Pressto
Barker C (PI), **Mazerolle EL**
$5 000

2016-2019 Multiple Sclerosis Society of Canada Operating Grant
Comorbidity, cognition and multiple sclerosis (C-COMS)
Marrie RA (PI), Fisk JD, Graff L, **Mazerolle EL**, Kornelsen J, Bernstein CN, Bolton J, Marriott JJ, Figley C
$266 083

2014-2016 **CIHR** Catalyst Grant (Secondary Analysis of Neuroimaging Databases)
Pre-symptomatic biomarkers for Alzheimer's disease: structural and functional changes in white matter
Gawryluk JR (PI), **Mazerolle EL**, Ritchie LJ, Fisk JD
$84 714

Teaching and Training Grants (Total: $2 553 300)

2022-2023 AtlanticOER Sprint Grant, Council of Atlantic University Libraries
Hackathon to improve an introductory Psychology and Neuroscience OER's equity and accessibility
Mazerolle EL (PI), Austen E, Husk J, Stevens L
$2 000

2022-2028 **CIHR** Health Research Training Platform
Health Research Training to Address Vascular Contributions to Cognitive Decline: the Vascular Training (VAST) Platform
Nominated principal applicant: Smith EE
Principal applicants: Badhwar A, **Mazerolle EL**, Stefanovic B
$2 400 000 + $149 300 for patient engagement activities

2021-2022 AtlanticOER Development Grant, Council of Atlantic University Libraries
Development of an existing open electronic lab manual, "Answering Questions with Data"
Mazerolle EL (PI), Lomore CD, Lee D, Neville-MacLean S, Berrigan LI
$2 000

Publications

Peer-Reviewed Research Articles

* Indicates a trainee I supervised, co-supervised, or mentored substantially

1. Nuefeld N, Parker A, Kwan H, **Mazerolle EL**, Gawryluk JR (submitted, manuscript # YNIRP-D-22-000108): Longitudinal changes in grey matter and cognitive performance over four years of healthy aging. *NeuroImage: Reports.*
2. Uddin N, Figley TD, Kornelsen J, **Mazerolle EL**, Helmick CA, O'Grady CB, Pirzada S, Patel R, Carter S, Wong K, Essig MR, Graff LA, Bolton JM, Marriott JJ, Bernstein CN, Fisk JD, Marrie RA, Figley CR (submitted, manuscript #970385): The Comorbidity and Cognition in Multiple Sclerosis (CCOMS) neuroimaging protocol: study rationale, MRI acquisition, and minimal image processing pipelines. *Frontiers in Neuroimaging.*
3. Williams RJ, Specht JL, **Mazerolle EL**, Lebel RM, MacDonald ME, Pike GB (submitted, manuscript #JCBFM-0251-22-ORIG): Correspondence between BOLD fMRI task activation and cerebrovascular reactivity across the cerebral cortex. *Journal of Cerebral Blood Flow and Metabolism.*

4. Patel R, Marrie RA, Bernstein CN, Bolton JM, Graff LA, Marriott JJ, Figley CR, Kornelsen J, **Mazerolle EL**, Uddin N, Fisk JD (submitted, manuscript #BRB3-2022-06-0541): Vascular comorbidity is associated with decreased cognitive functioning in inflammatory bowel disease. *Brain and Behavior*.

5. Marrie RA, Patel R, Figley CR, Kornelsen J, Bolton JM, Graff LA, **Mazerolle EL**, Helmick C, Uddin N, Figley T, Marriott JJ, Bernstein CN, Fisk JD (2022): Effects of vascular comorbidity on cognition in multiple sclerosis are partially mediated by changes in brain structure. *Frontiers in Neurology*, 13: 910014. https://doi.org/10.3389/fneur.2022.910014

6. Beaudin AE, McCreary C, **Mazerolle EL**, Gee M, Sharma B, Subotic A, Zwiers A, Cox E, Nelles K, Charlton A, Frayne R, Ismail Z, Beaulieu C, Jickling GC, Camicioli R, Pike GB, Smith EE (2022): Impaired cerebrovascular reactivity in cerebral amyloid angiopathy. *Neurology*, 98: e1716-e1728. https://doi.org/10.1212/WNL.0000000000200136

7. *Isenor K, **Mazerolle EL**, Barker C (2021): Pay attention to this: a knowledge translation study of ADHD and its brain basis to pre-service and in-service teachers. *in education*, 27: 80-97. https://doi.org/10.37119/ojs2021.v27i1.510 (open access)

8. Marrie RA, Patel R, Figley CR, Kornelsen J, Bolton JM, Graff LA, **Mazerolle EL**, Helmick C, O'Grady C, Uddin MN, Marriott JJ, Bernstein CN, Fisk JD (2021): Higher Framingham Risk Scores are associated with greater loss of brain volume over time in multiple sclerosis. *Multiple Sclerosis and Related Disorders*, 54:103088. https://doi.org/10.1016/j.msard.2021.103088

9. **Mazerolle EL**, Warwaruk-Rogers R, Romo P, Sankar T, Scott S, Rockel C, Pichardo S, Martino D, Kiss ZHT, Pike GB (2021): Diffusion imaging changes in the treated tract following focused ultrasound thalamotomy for tremor. *NeuroImage: Reports*, 1: 10010. https://doi.org/10.1016/j.ynirp.2021.100010 (open access)

10. Marrie RA, Whitehouse CE, Patel R, Figley CR, Kornelsen J, Bolton JM, Graff LA, **Mazerolle EL**, Marriott JJ, Bernstein CN, Fisk JD (2021): Performance of regression-based norms for cognitive functioning of persons with multiple sclerosis in an independent sample for the comorbidity and cognition in multiple sclerosis study. *Frontiers in Neurology*, 11: 621010. https://doi.org/10.3389/fneur.2020.621010 (open access)

11. Auclair-Ouellet N, Hanganu A, **Mazerolle EL**, Lang ST, Kibreab M, Ramezani M, Haffenden A, Hammer T, Cheetham J, Kathol I, Pike GB, Sarna J, Martino D, Monchi O (2021): Action fluency identifies different sex, age, global cognition, executive function and brain activation profile in non-demented patients with Parkinson's disease. *Journal of Neurology*, 268: 1036-1049. https://doi.org/10.1007/s00415-020-10245-3

12. Ma Y, **Mazerolle EL**, Cho J, Sun H, Wang Y, Pike GB (2020): Quantification of brain oxygen extraction fraction (OEF) using quantitative susceptibility mapping (QSM) and a hyperoxic challenge. *Magnetic Resonance in Medicine*, https://doi.org/10.1002/mrm.28390

13. Martino D, Rockel CP, Bruno V, **Mazerolle EL**, Jetha S, Pichardo S, Pike GB, Kiss ZHT (2020): Dystonia following thalamic neurosurgery: A single centre experience with MR-guided focused ultrasound thalamotomy. *Parkinsonism and Related Disorders*, 71: 1-3. https://doi.org/10.1016/j.parkreldis.2019.11.019

14. Ma Y, Sun H, Cho J, **Mazerolle EL,** Wang Y, Pike GB (2020): Cerebral OEF quantification: a comparison study between quantitative susceptibility mapping and dual-gas calibrated BOLD imaging. *Magnetic Resonance in Medicine*, 83: 68-82. https://doi.org/10.1002/mrm.27907

15. **Mazerolle EL**, Ohlhauser L, Mayo CD, Sheriff A, Gawryluk JR (2020): Evidence of under-reporting of white matter fMRI activation. *Journal of Magnetic Resonance Imaging*, 51: 1596-1597. https://doi.org/10.1002/jmri.26952

16. Pirzada SS, Uddin MD, Figley TD, Kornelson J, Puig J, Marrie RA, **Mazerolle EL**, Fisk JD, Helmick CA, O'Grady CB, Patel R, Figley CR, CCOMS Study Group (2020): Spatial normalization of multiple sclerosis brain MRI data depends on analysis method and software package. *Magnetic Resonance Imaging*, 68: 83-94. https://doi.org/10.1016/j.mri.2020.01.016

17. Clark CM, Guadagni V, **Mazerolle EL**, Hill MD, Hogan D, Pike GB, Poulin M (2019): Effect of aerobic exercise on white matter microstructure in the aging brain. *Behavioural Brain Research*, 373: 112042. https://doi.org/10.1016/j.bbr.2019.112042

18. *Findlater SE, Hawe RL, **Mazerolle EL**, Sultan A, Cassidy JM, Scott SH, Pike GB, Dukelow SP (2019): Comparing CST lesion metrics as biomarkers for recovery of motor and proprioceptive impairments after stroke. *Neurorehabilitation and Neural Repair*, 33: 848-861. https://doi.org/10.1177/1545968319868714

19. *Findlater SE, **Mazerolle EL**, Pike GB, Dukelow SP (2019): Proprioception and motor performance after stroke: an examination of diffusion properties in sensory and motor pathways. *Human Brain Mapping*, 40: 2995-3009. https://doi.org/10.1002/hbm.24574

20. Marrie RA, Patel R, Figley CR, Kornelsen J, Bolton JM, Graff L, **Mazerolle EL**, Marriott JJ, Bernstein CN, Fisk JD (2019): Diabetes and anxiety adversely affect cognition in multiple sclerosis. *Multiple Sclerosis and Related Disorders*, 27: 164-170. https://doi.org/10.1016/j.msard.2018.10.018

21. Mayo CD, Garcia-Barrera M, **Mazerolle EL**, Ritchie L, Fisk JD, Gawryluk JR (2019): Relationship between DTI metrics and cognitive function in Alzheimer's disease. *Frontiers in Aging Neuroscience*, 10: 436. https://doi.org/10.3389/fnagi.2018.00436 (open access)

22. **Mazerolle EL**, *Seasons GM, Warwaruk-Rogers R, Romo P, Nordal R, Sevick RJ, Martino D, Pichardo S, Kiss ZHT, Pike GB (2019) Focused ultrasound resolves persistent radiosurgery related change in a patient with tremor. *Radiology Case Reports*, 14: 1233-1236. https://doi.org/10.1016/j.radcr.2019.07.010 (open access)

23. *Seasons GM, **Mazerolle EL**, Sankar T, Martino D, Kiss ZHT, Pichardo S, Pike GB (2019): Predicting high-intensity focused ultrasound thalamotomy lesions using 2D magnetic resonance thermometry and 3D Gaussian modeling. *Medical Physics*, 46: 5722-5732. https://doi.org/10.1002/mp.13868

24. MacDonald ME, Berman AJL, **Mazerolle EL**, Williams RJ, Pike GB (2018): Modeling hyperoxia-induced BOLD signal dynamics to estimate cerebral blood flow, volume and mean transit time. *NeuroImage*, 178: 461-474. https://doi.org/10.1016/j.neuroimage.2018.05.066

25. **Mazerolle EL**, Ma Y, Sinclair D, Pike GB (2018): Impact of abnormal cerebrovascular reactivity on BOLD fMRI: a preliminary investigation of Moyamoya disease. *Clinical Physiology and Functional Imaging*, 38: 87-92. https://doi.org/10.1111/cpf.12387 (open access)

26. Scarapicchia V, **Mazerolle EL**, Fisk JD, Ritchie L, Gawryluk JR (2018): Resting state BOLD variability in Alzheimer's disease: a marker of cognitive decline or cerebrovascular status? *Frontiers in Aging Neuroscience*, 10: 39. https://doi.org/10.3389/fnagi.2018.00039 (open access)

27. Berman AJL, **Mazerolle EL**, MacDonald ME, Blockley NP, Luh W-M, Pike GB (2017): Gas-free calibrated fMRI with a correction for vessel-size sensitivity. *NeuroImage*, 160: 176-188. https://doi.org/10.1016/j.neuroimage.2017.12.047

28. Mayo CD, **Mazerolle EL**, Ritchie LL, Fisk JD, Gawryluk JR (2017): Longitudinal changes in microstructural white matter metrics in Alzheimer's disease. *NeuroImage: Clinical*, 13: 330-338. https://doi.org/10.1016/j.nicl.2016.12.012 (open access)

29. **Mazerolle EL**, Marchand Y (2015): TypingSuite: integrated software for presenting stimuli, and collecting and analyzing typing data. *Journal of Psycholinguistic Research*, 44: 127-139. https://doi.org/10.1007/s10936-014-9283-9

30. Gawryluk JR, **Mazerolle EL**, Beyea SD, D'Arcy RCN (2014): Functional MRI activation in white matter during the Symbol Digit Modalities Test. *Frontiers in Human Neuroscience*, 8: 598. https://doi.org/10.3389/fnhum.2014.00589 (open access)

31. Wojtowicz MA, Ishigami Y, **Mazerolle EL**, Fisk JD (2014): Stability of intraindividual variability in relapsing remitting multiple sclerosis. *Journal of Clinical and Experimental Neuropsychology*, 36: 455-463. https://doi.org/10.1080/13803395.2014.903898

32. Wojtowicz MA, **Mazerolle EL**, Bhan V, Fisk JD (2014): Altered functional connectivity and performance variability in relapsing remitting multiple sclerosis. *Multiple Sclerosis Journal*, 20: 1453-1463. https://doi.org/10.1177/1352458514524997

33. Holland DJ, Liu C, Song X, **Mazerolle EL**, Stevens MT, Sederman AJ, Gladden LF, D'Arcy RCN, Bowen CV, Beyea SD (2013): Compressed sensing reconstruction improves sensitivity of variable density spiral fMRI. *Magnetic Resonance in Medicine*, 70: 1634-1643. https://doi.org/10.1002/mrm.24621

34. **Mazerolle EL**, Gawryluk JR, Dillen KN, Patterson SA, Feindel KW, Beyea SD, Stevens TM, Newman AJ, Schmidt MH, D'Arcy RCN (2013): Sensitivity to white matter activation increases with field strength. *PLOS ONE*, 8(3): e58130. https://doi.org/10.1371/journal.pone.0058130 (open access)

35. **Mazerolle EL,** Wojtowicz MA, Omisade A, Fisk JD (2013): Intra-individual variability in information processing speed reflects white matter microstructure in multiple sclerosis. *NeuroImage: Clinical*, 2: 894-902. https://doi.org/10.1016/j.nicl.2013.06.012 (open access)

36. McWhinney SR, **Mazerolle EL**, Gawryluk JR, Beyea SD, D'Arcy RCN (2012): Comparing gray and white matter fMRI activation using asymmetric spin echo spiral. *Journal of Neuroscience Methods*, 209: 351-356. https://doi.org/10.1016/j.jneumeth.2012.06.014

37. Gawryluk JR, D'Arcy RCN, **Mazerolle EL**, Brewer KD, Beyea SD (2011): Functional mapping in the corpus callosum: a 4T fMRI study of white matter. *NeuroImage*, 54: 10-15. https://10.1016/j.neuroimage.2010.07.028

38. Gawryluk JR, **Mazerolle EL**, Brewer KD, Beyea SD, D'Arcy RCN (2011): Investigation of fMRI activation in the internal capsule. *BMC Neuroscience*, 12: 56. https://doi.org/10.1186/1471-2202-12-56 (open access)

39. **Mazerolle EL**, Beyea SD, Gawryluk JR, Brewer KD, Bowen CV, D'Arcy RCN (2010): Confirming white matter fMRI activation in the corpus callosum: co-localization with DTI tractography. *NeuroImage*, 50: 616-621. https://doi.org/10.1016/j.neuroimage.2009.12.102

40. *Versteeg VL, Marchand Y, **Mazerolle EL**, D'Arcy RCN (2010): Profiling brain function: spatiotemporal characteristics of normal and abnormal visual evoked potentials. *Journal of Neuroscience Methods*, 190: 95-105. https://doi.org/10.1016/j.jneumeth.2010.04.015

41. **Mazerolle EL**, D'Arcy RCN, Beyea SD (2008): Detecting functional magnetic resonance imaging activation in white matter: Interhemispheric transfer across the corpus callosum. *BMC Neuroscience*, 9: 84. https://doi.org/10.1186/1471-2202-9-84 (open access)
Highly accessed article *based on Biomed Central access statistics*

42. D'Arcy RCN, Bolster RB, Ryner L, **Mazerolle EL**, Grant J, Song X (2007): A site directed fMRI approach for evaluating functional status in the anterolateral temporal lobes. *Neuroscience Research*, 57: 120-128. https://doi.org/10.1016/j.neures.2006.09.018

43. **Mazerolle EL**, D'Arcy RCN, Marchand Y, Bolster RB (2007): ERP assessment of functional status in the temporal lobe: examining spatiotemporal correlates of object recognition. *International Journal of Psychophysiology*, 66: 81-92. https://doi.org/10.1016/j.ijpsycho.2007.06.003

Peer-Reviewed Review Articles

1. Williams RJ, MacDonald ME, **Mazerolle EL**, Pike GB (2021): The relationship between cognition and cerebrovascular reactivity: Implications for task-based fMRI. *Frontiers in Physics*, 8: 645249. https://doi.org/10.3389/fphy.2021.645249 (open access)

2. Mark CI, **Mazerolle EL**, Chen JJ (2015): Metabolic and vascular origins of the BOLD effect: implications for imaging pathology and resting-state brain function. *Journal of Magnetic Resonance Imaging*, 42: 231-46. https://doi.org/10.1002/jmri.24786

3. Gawryluk JR[1], **Mazerolle EL[1]**, D'Arcy RCN (2014): Does functional MRI detect activation in white matter? A review of emerging evidence, issues, and future directions. *Frontiers in Neuroscience*, 8: 239. https://doi.org/10.3389/fnins.2014.00239 (open access)
[1]Co-first authors

Reports

1. *Kawaja N, *Draper E, Barker C, **Mazerolle EL** (2022): *Budding journalism: an exploration of zine creation and its benefits among children through the use of Pressto*. Prepared for Pressto.

Refereed Abstracts (podium presentations)

1. Barker C (presenter), **Mazerolle EL** (accepted for July, 2022). Impacts of integrating personal experiences with neuroscience knowledge translation activities. 12-minute talk, *Canadian Psychological Association 83rd Annual National Convention* (Calgary, Canada).

2. Williams RJ (presenter), **Mazerolle EL**, MacDonald ME, Berman AJL, Luh W-M, Pike GB (2017): Flow and metabolic coupling associated with positive and negative BOLD responses across retinotopic early visual cortices. Proffered paper, *Imaging Cerebral Physiology Symposium* (Cardiff, Wales).

3. **Mazerolle EL**, Beaudin AE, Basha AM, Poulin MJ, Pike GB (2016): Functional connectivity changes associated with a six-month aerobic exercise intervention in older adults are not explained by CBF or BOLD-CVR changes. *3rd Whistler Scientific Workshop on Brain Functional Organization, Connectivity, and Behaviour* (Whistler-Blackcomb, Canada).
4. **Mazerolle EL**, Gawryluk JR, D'Arcy RCN (2010): White matter fMRI activation in the internal capsule: co-localization with DTI tractography. *16th Annual Meeting of the Organization for Human Brain Mapping* (Barcelona, Spain).
5. **Mazerolle EL**, Song X, Brewer KD, Beyea SD, D'Arcy RCN (2008): Functional MRI in white matter: experimental evidence at 4T. *16th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Toronto, Canada).

Refereed Abstracts (poster presentations)

* Indicates a student I supervised, co-supervised, or mentored substantially

1. Beaudin AE, McCreary CR, **Mazerolle EL**, Gee M, Sharma B, Subotic A, Zwiers A, Cox E, Nelles K, Charlton A, Frayne R, Ismail Z, Beaulieu C, Jickling GC, Camicioli R, Pike GB, Smith EE (2020): Spatial differences in cerebrovascular reactivity to carbon dioxide between patients with cerebral amyloid angiopathy (CAA) and healthy controls. *7th International Cerebral Amyloid Angiopathy Conference*.
2. Beaudin AE, McCreary CR, **Mazerolle EL**, Sharma B, Subotic A, Zwiers A, Cox E, Charlton A, Frayne R, Ismail Z, Pike GB, Smith EE (2020): Relationship between cerebrovascular reactivity to carbon dioxide and cognitive function in cerebral amyloid angiopathy. *7th International Cerebral Amyloid Angiopathy Conference*.
3. Housh S, Beaudin AE, McCreary CR, **Mazerolle EL**, Sharma B, Subotic A, Zwiers A, Cox E, Charlton A, Frayne R, Ismail Z, Pike GB, Smith EE (2020): Cerebrovascular reactivity to carbon dioxide in patients with cerebral amyloid angiopathy and Alzheimer's disease. *7th International Cerebral Amyloid Angiopathy Conference*.
4. Ma Y, **Mazerolle EL**, Cho J, Sun H, Wang Y, Pike GB (2020): Quantification of brain oxygen extraction fraction (OEF) using QSM and a hyperoxic challenge. *26th Annual Meeting of the Organization for Human Brain Mapping* (virtual conference).
5. Pirzada S, Uddin N, Figley TD, Kornelsen J, Puig J, Marrie RA, **Mazerolle EL**, Fisk JD, Helmick CA, O'Grady CB, Patel R, Figley CR, CCOMS Study Group (2020): Differences between brain MRI spatial normalization approaches in the presence of MS pathologies. *Americans Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS) Forum* (West Palm Beach, USA).
6. Pirzada S, Uddin N, Patel R, Fisk JD, Figley TD, Kornelsen J, Marrie RA, **Mazerolle EL**, Helmick CA, O'Grady CB, Puig J, Figley CR, CCOMS Study Group (2020): Network-based measures of white matter microstructure reflect individual differences in executive function among persons with MS. *ACTRIMS Forum* (West Palm Beach, USA).
7. Specht JL, Williams RJ, **Mazerolle EL**, Pike GB (2019): Hypercapnic normalization to correct for caffeine-induced changes in task-based BOLD fMRI responses. *27th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Montreal, Canada).

8. Ma Y, Sun H, Cho J, **Mazerolle EL**, Wang Y, Pike GB (2019): Whole-brain OEF quantification: a comparison study between QSM and dual-gas calibrated BOLD. *27th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Montreal, Canada).

9. Sun H, MacDonald ME, **Mazerolle EL**, Sabourin K, Pike GB (2019): Localization of GPi for MRgFUS pallidotomy: a comparison between high-resolution FGATIR, R2*, and QSM at 3 T. *27th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Montreal, Canada).

10. *Seasons GM, **Mazerolle EL**, Warwaruk-Rogers R, Romo P, Sankar T, Martino D, Kiss ZHT, Pichardo S, Pike GB (2019): Predicting high intensity focused ultrasound thalamotomy lesions using magnetic resonance thermometry and 3D Gaussian modelling. *International Society for Therapeutic Ultrasound Conference* (Barcelona, Spain).

11. *Findlater, SE, **Mazerolle EL,** Pike GB, Dukelow SP (2018): Proprioception after stroke – examining diffusion properties in sensory and motor pathways. *American Society of Neurorehabilitation Annual Meeting* (San Diego, USA).

12. **Mazerolle EL**, Warwaruk-Rogers R, Sevick R, Sankar T, Pichardo S, Zaaroor M, Martino D, Kiss ZHT, Pike GB (2018): MR-guided focused ultrasound for essential tremor: Initial MRI observations. *6th International Symposium on Focused Ultrasound* (Reston, USA).

13. Swytink-Binnema (Weiner) CA, Macsemchuk CA, **Mazerolle EL**, Pike GB, Kiss ZH, Pichardo S (2018): Navigational analysis and sensory responses of MR-guided focused ultrasound thalamotomy: Early results. *6th International Symposium on Focused Ultrasound* (Reston, USA).

14. Beaudin AE, McCreary C, **Mazerolle EL**, Zwiers A, Charlton A, Frayne R, Ismail Z, Pike GB, Smith EE (2018): Blood oxygen level dependent (BOLD) cerebrovascular reactivity to carbon dioxide in patients with cerebral amyloid angiopathy (CAA): a pilot study. *6th International CAA Conference* (Lille, France).

15. Beaudin AE, McCreary C, **Mazerolle EL**, Zwiers A, Charlton A, Frayne R, Ismail Z, Pike GB, Smith EE (2018): Cerebrovascular reactivity to carbon dioxide in patients with cerebral amyloid angiopathy: preliminary data from the functional assessment of vascular reactivity to CO_2 study (FAVRCO_2). *International Conference on Promoting Healthy Brain Aging and Preventing Dementia* (Banff, Canada).

16. Mayo CD, **Mazerolle EL**, Ritchie LJ, Fisk JD, Gawryluk JR (2018): Is white matter microstructure in Alzheimer's disease associated with cognitive function? *International Neuropsychological Society* (Prague, Czech Republic).

17. Williams RJ, Specht J, MacDonald ME, Lebel RM, **Mazerolle EL**, Pike GB (2018): Accounting for vascular reactivity to clarify the role of the subcortical regions in attention. *24th Annual Meeting of the Organization for Human Brain Mapping* (Singapore), #1761.

18. Clark CM, **Mazerolle EL**, Hill M, Hogan DB, Pike GB, Poulin MJ (2017): Aerobic exercise and white matter integrity in the aging brain. *Canadian Stroke Congress* (Calgary, Canada).

19. Auclair-Ouellet N, Hanganu A, **Mazerolle EL**, Sarna J, Kibreab M, Cheetham J, Kathol I, Haffenden A, Pike GB, Monchi O (2017): Action verbal fluency is related to the functional integrity of the cognitive cortico-striatal loop in Parkinson's disease. *21st International Congress of Parkinson's Disease and Movement Disorders* (Vancouver, Canada).

20. Mayo CD, **Mazerolle EL**, Ritchie LJ, Fisk JD, Gawryluk JR (2017): Relationship between DTI metrics, executive function, and memory in Alzheimer's and older adults. *23rd Annual Meeting of the Organization for Human Brain Mapping* (Vancouver, Canada).

21. Scarapicchia V, **Mazerolle EL**, Fisk JD, Gawryluk JR (2017): BOLD variability in Alzheimer's disease: a marker of cognitive decline or cerebrovascular status? *23rd Annual Meeting of the Organization for Human Brain Mapping*, #1767 (Vancouver, Canada).

22. Berman AJL, **Mazerolle EL**, MacDonald ME, Blockley NP, Luh W-M, Pike GB (2017): Correcting for imperfect spin echo refocusing in gas-free fMRI calibration. *25th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Honolulu, USA).

23. Bright MG, **Mazerolle EL**, Sobczyk O, Fan AP, van Osch MJP, Mark CI, Huber L, Berman AJL, Bulte DP, Pike GB, Gauthier CJ, Blockley NP (2017): Clinical mapping of cerebrovascular reactivity using MRI: a framework for reaching consensus. *25th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Honolulu, USA).

24. *Bird JE, **Mazerolle EL**, Luh W-M, Pike GB (2016): Calibrated functional magnetic resonance imaging of the motor cortex in multiple sclerosis. *22nd Annual Meeting of the Organization for Human Brain Mapping* #2912 (Geneva, Switzerland).

25. MacDonald ME, Berman AJL, **Mazerolle EL**, Williams RJ, Pike GB (2016): Modeling resting cerebral perfusion from BOLD signal dynamics during hyperoxia. *24th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* #1700 (Singapore).

26. Mayo C, **Mazerolle EL**, Ritchie L, Fisk JD, Gawryluk JR (2016): An investigation of the relationship between microstructural white matter and cognitive performance in Alzheimer's disease. *Canadian Psychological Association 77th Annual Convention* #13429 (Victoria, Canada).

27. Mayo C, **Mazerolle EL**, Ritchie L, Fisk JD, Gawryluk JR (2016): Longitudinal microstructural white matter changes in Alzheimer's disease. *22nd Annual Meeting of the Organization for Human Brain Mapping* #2912 (Geneva, Switzerland).

28. **Mazerolle EL**, Beaudin AE, Basha AM, Poulin MJ, Pike GB (2016): BOLD-CVR, CBF, and functional connectivity changes associated with a six-month aerobic exercise intervention in older adults: Results from the Brain in Motion study. *International Conference for Promoting Healthy Brain Aging and Preventing Dementia* (Banff, Canada).

29. **Mazerolle EL**, *McLean MA, Williams RJ, Berman AJL, Luh W-M, Pike GB (2016): Revisiting the effect of visual attention on the flow-metabolism ratio. *22nd Annual Meeting of the Organization for Human Brain Mapping* #1712 (Geneva, Switzerland).

30. Scarapicchia V, **Mazerolle EL**, Ritchie L, Fisk JD, Gawryluk JR (2016): Resting-state BOLD variability in Alzheimer's disease versus normal aging. *22nd Annual Meeting of the Organization for Human Brain Mapping* #1726 (Geneva, Switzerland).

31. Williams RJ, **Mazerolle EL**, MacDonald ME, Luh W-M, Pike GB (2016): Positive and negative BOLD and CBF responses across the early visual regions. *22nd Annual Meeting of the Organization for Human Brain Mapping* #2732 (Geneva, Switzerland).

32. MacDonald ME, Berman AJL, Williams RJ, **Mazerolle EL**, Pike GB (2015): Blood oxygen level dependent (BOLD)-quantitative susceptibility mapping (QSM) with different head orientations. *23rd Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Toronto, Canada).

33. Mayo C, Frazier J, **Mazerolle EL**, Ritchie L, Fisk JD, Gawryluk JR (2015): Grey and white matter changes in Alzheimer's disease compared to normal aging. *21st Annual Meeting of the Organization for Human Brain Mapping* (Honolulu, USA).

34. **Mazerolle EL**, Ma Y, Sinclair D, Pike GB (2015): Task-dependent neurovascular uncoupling in Moyamoya disease. *23rd Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Toronto, Canada) #2820.

35. Ragot DM, **Mazerolle EL**, Chen JJ (2015): Investigating task-based activation and functional connectivity in the white matter using fMRI at 3 Tesla. *23rd Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Toronto, Canada).

36. **Mazerolle EL**, La Piana R, Tampieri D, Mok K, Cortes M, Klein D, Pike GB (2014): Atypical BOLD fMRI response is co-localized with abnormal resting perfusion in patients with arteriovenous malformations. *22nd Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Milan, Italy) #2035.

37. **Mazerolle EL**, Ma Y, Yan L, Wang JJ, Pike GB (2014): Physiological noise correction and repeatability of BOLD cerebrovascular reactivity measurement. *20th Annual Meeting of the Organization for Human Brain Mapping* (Hamburg, Germany) #2018.

38. Wojtowicz MA, **Mazerolle EL**, Fisk JD (2014): Attention network efficiency and performance variability is associated with white matter microstructure in persons with multiple sclerosis. *2014 Joint Annual ACTRIMS-Europen Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) Meeting* (Boston, USA).

39. Wojtowicz MA, **Mazerolle EL**, Omisade A, Fisk JD (2014): Performance variability is associated with white matter integrity in persons with Multiple Sclerosis. *International Neuropsychological Society 42nd Annual Meeting* (Seattle, USA).

40. Stikov N, Giorgio A, Campbell JSW, **Mazerolle EL**, De Stefano N, Pike GB (2013): Magnetization transfer ratio tractometry in multiple sclerosis. *21st Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Salt Lake City, USA) #4846.

41. **Mazerolle EL**, Wojtowicz MA, Omisade A, Fisk JD (2012): Microstructural correlates of information processing speed in relapsing-remitting multiple sclerosis: a tract-based spatial statistics study of the computerized test of information processing. *42nd Annual Meeting of the Society for Neuroscience* (New Orleans, USA).

42. Patterson SA, **Mazerolle EL**, Beyea SD, Bowen CV (2012): Whole-brain artefact-suppressed SSFP fMRI in a single paradigm run: alternating SSFP. *20th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Melbourne, Australia).

43. Wojtowicz MA, **Mazerolle EL**, Fisk JD (2012): Resting-state connectivity in the default mode network is related to performance variability in multiple sclerosis. *3rd Biennial Conference on Resting State Brain Connectivity* (Magdeburg, Germany).

44. **Mazerolle EL**, Bowen CV, DeBay DR, Feindel KW, Rioux JR, Semba K, Rasmusson D, D'Arcy RCN (2011): Hemodynamic changes can be detected in rat white matter using a hypercapnic challenge. *19th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Montreal, Canada).

45. **Mazerolle EL**, Brewer KD, Beyea SD, Gawryluk JR, Bowen CV, DeBay DR, Feindel KW, Rioux JR, Semba K, Rasmusson D, D'Arcy RCN (2011): Hemodynamic changes in white matter during a breath-hold task do not result from partial volume effects: Implications for white matter fMRI. *17th Annual Meeting of the Organization for Human Brain Mapping* (Quebec City, Canada).

46. Gawryluk JR, **Mazerolle EL**, Beyea SD, D'Arcy RCN (2011): White matter fMRI: linking advances in research with neuropsychological measures. *17th Annual Meeting of the Organization for Human Brain Mapping* (Quebec City, Canada).

47. Holland D, Liu C, **Mazerolle EL**, Song X, Stevens MTR, Bowen CV, Sederman A, Gladden L, Beyea SD (2011): Compressed sensing reconstruction improves variable density spiral functional MRI. *19th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Montreal, Canada).

48. Holland D, Liu C, **Mazerolle EL**, Song X, Stevens MTR, Bowen CV, Sederman A, Gladden L, Beyea SD (2011): Highly sparse spiral fMRI reconstructed with compressed sensing: Trajectory optimization for BOLD contrast. *19th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Montreal, Canada).

49. D'Arcy RCN, Gawryluk JR, Song X, **Mazerolle EL**, Beyea SD, Clarke D (2010): White matter fMRI in a callosotomy patient. *16th Annual Meeting of the Organization for Human Brain Mapping* (Barcelona, Spain).

50. Gawryluk JR, Dillen K, Brewer KD, **Mazerolle EL**, Beyea SD, D'Arcy RCN (2009): Exploring functional differentiation in the corpus callosum using white matter fMRI. *15th Annual Meeting of the Organization for Human Brain Mapping* (San Francisco, USA).

51. Gawryluk JR, Dillen K, Brewer KD, **Mazerolle EL**, Beyea SD, D'Arcy RCN (2009): White matter fMRI: exploring functional differentiation in the corpus callosum. *17th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Honolulu, USA).

52. **Mazerolle EL**, Gawryluk JR, Brewer KD, D'Arcy RCN, Bowen CV, Beyea SD (2009): Co-localization of white matter fMRI activation and tractography in the corpus callosum. *15th Annual Meeting of the Organization for Human Brain Mapping* (San Francisco, USA).

53. D'Arcy RCN, **Mazerolle EL**, *Pelot N (2008): Tracking inter-hemispheric transfer with high-density event-related brain potentials. *14th Annual Meeting of the Organization for Human Brain Mapping* (Melbourne, Australia).

54. Marchand Y, D'Arcy RCN, *Versteeg V, **Mazerolle EL** (2008): Profiling brain function for source imaging in EEG and MEG: a similarity ranking method for evaluating individual activation. *14th Annual Meeting of the Organization for Human Brain Mapping* (Melbourne, Australia).

55. Marchand Y, *Versteeg V, D'Arcy, RCN, **Mazerolle EL**, Stroink G (2008): A similarity ranking method for evaluating EEG/MEG source localization maps in both sensory and cognitive tasks. *16th International Conference on Biomagnetism* (Sapporo, Japan).

56. **Mazerolle EL**, D'Arcy RCN, Song X, Beyea SD (2008): Detecting fMRI activation in white matter: interhemispheric transfer of functionally lateralized stimuli across the corpus callosum. *14th Annual Meeting of the Organization for Human Brain Mapping* (Melbourne, Australia).

57. **Mazerolle EL**, D'Arcy RCN (2007): Characterizing the relationship between block and fast event-related fMRI activation using a mixed design. *13th Annual Meeting of the Organization for Human Brain Mapping* (Chicago, USA).

58. **Mazerolle EL**, D'Arcy RCN, Bowen CV, Beyea SD (2007): Can high field functional MRI detect interhemispheric transfer of visual and motor information? *15th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Berlin, Germany).

59. **Mazerolle EL**, D'Arcy RCN, *Cameron-Vendrig J, Beyea SD (2007): Tracking the spatiotemporal dynamics of visual and motor interhemispheric transfer: a multimodal study of functional connectivity. *13th Annual Meeting of the Organization for Human Brain Mapping* (Chicago, USA).

60. D'Arcy RCN, Bolster RB, Ryner L, **Mazerolle EL** (2005): Functional MRI evaluates temporal lobe function during a picture-word matching task. *45th Annual Meeting of the Society for Psychophysiological Research* (Lisbon, Portugal).

61. D'Arcy RCN, Bolster RB, Ryner L, Runke DS, Song X, **Mazerolle EL** (2005): Hidden pattern identification in fMRI: what's in the posterior parietal lobe? *13th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Miami Beach, USA).

62. **Mazerolle EL**, D'Arcy RCN, Bolster RB (2005): Electrophysiological correlates of visual object recognition. *45th Annual Meeting of the Society for Psychophysiological Research* (Lisbon, Portugal).

63. **Mazerolle EL**, D'Arcy RCN, Connolly JF, Service E, Ryner L (2005): An event-related fMRI study of orthography and phonology in silent reading. *45th Annual Meeting of the Society for Psychophysiological Research* (Lisbon, Portugal).

Non-Refereed Abstracts (podium presentations)

1. **Mazerolle EL**, Warwaruk-Rogers R, Sevick R, Sankar T, Pichardo S, Zaaroor M, Martino D, Kiss ZHT, Pike GB (2018): MR-guided focused ultrasound for essential tremor: initial MRI observations. *Movement Disorders NeuroTeam Collaboration Retreat*, University of Calgary.

2. **Mazerolle EL**, La Piana R, Tampieri D, Mok K, Cortes M, Klein D, Pike GB (2013): Pre-treatment BOLD fMRI mapping results can be misleading in patients with abnormal hemodynamics: improving interpretability with arterial spin labeling perfusion MRI. *Denis Melançon Neuroradiology Conference*, Montreal Neurological Institute.

3. **Mazerolle EL**, La Piana R, Tampieri D, Mok K, Cortes M, Klein D, Pike GB (2013): Interpreting pre-treatment fMRI mapping results in patients with abnormal cerebral perfusion. *Neurosurgery Research Day*, Montreal Neurological Institute.

4. **Mazerolle EL**, Gawryluk JR, Dillen K, Beyea SD, D'Arcy RCN (2012): Understanding why white matter fMRI is scarcely reported: sensitivity to white matter activation increases with field strength. *Psychology and Neuroscience 38th Annual Graham Goddard In-House Conference*, Dalhousie University.

5. **Mazerolle EL**, Gawryluk JR, Dillen K, Brewer KD, D'Arcy RCN, Bowen CV, Beyea SD (2009): Co-localization of white matter fMRI activation and DTI tractography in the corpus callosum. *Annual Research Day*, Department of Diagnostic Radiology, Dalhousie University.

6. **Mazerolle EL**, Marchand Y, Keselj V (2009): Classification of keystroke dynamics. *Annual In-House Conference*, Psychology Department, Dalhousie University.

7. **Mazerolle EL**, Song X, Brewer KD, Beyea SD, D'Arcy RCN (2008): Functional MRI in white matter: experimental evidence at 4T. *Annual Research Day*, Department of Diagnostic Radiology, Dalhousie University.
8. **Mazerolle EL**, D'Arcy RCN (2007): Determining neuro-cognitive connectivity: an event-related fMRI study at 4T. *Annual In-House Conference*, Psychology Department, Dalhousie University.

Non-Refereed Abstracts (poster presentations)

1. **Mazerolle EL**, Pike GB (2014): Quantitative fMRI of disrupted brain metabolism in multiple sclerosis. *Alberta endMS Retreat*, Banff, Alberta.
2. **Mazerolle EL**, Ma Y, Yan L, Wang JJ, Pike GB (2014): Physiological noise correction and repeatability of BOLD cerebrovascular reactivity measurement. *10th Annual Hotchkiss Brain Institute Research Day*, University of Calgary.
3. **Mazerolle EL**, La Piana R, Tampieri D, Mok K, Cortes M, Klein D, Pike GB (2014): Atypical BOLD fMRI response is co-localized with abnormal resting perfusion in patients with arteriovenous malformations. *4th Alberta Imaging Symposium*, Edmonton, Canada.
4. **Mazerolle EL**, Wojtowicz MA, Omisade A, Fisk JD (2012): White matter microstructural correlates of cognitive deficits in multiple sclerosis. *3rd Annual University of Toronto Neuroinflammation Symposium & endMS Regional Research and Training Network Retreat*, King City, Canada.
5. **Mazerolle EL**, D'Arcy RCN, Bolster RB (2006): Event-related potential methods for evaluating functional status in epilepsy. *Annual In-House Conference*, Psychology Department, Dalhousie University.

Invited Talks and Panels

5 May 2022	Science Atlantic Undergraduate Psychology Conference (virtual) *Incisionless Brain Surgery* (keynote presentation)
18 Aug 2021	Presenter, Introduction to Open Educational Resources Workshop (virtual) St. Francis Xavier University
17 Aug 2021	Panel member, Open Educational Resources grant kick-off event (virtual), Cape Breton University
15 Jan 2021	Department of Psychology, University of Victoria *MR-guided focused ultrasound for tremor: Impact on brain microstructure*
24 Sep 2020	Facilitator, *Community Check-In and Reflection* (with Drs. Erin Austen and Angie Kolen) Maple League Virtual Teaching and Learning Centre
6 Feb 2019	Department of Psychology, St. Francis Xavier University (Antigonish, Nova Scotia) *Neurovascular underpinnings of functional brain connectivity and neurological disease: an MRI perspective*
18 Oct 2018	Advanced Imaging Seminar Series, University of Calgary *MR-guided focused ultrasound thalamotomy for tremor: Initial MRI observations*

10 Aug 2017 Department of Pharmacology and Therapeutics, University of Manitoba (Winnipeg)
Neurovascular underpinnings of functional brain connectivity and neurological disease: an MRI perspective

19 Apr 2016 Active Living for Healthy Brains: A Community Engagement Event (Calgary)
BOLD-CVR, CBF, and functional connectivity changes associated with a six month aerobic exercise intervention in older adults

2 Jun 2015 International Imaging Cerebral Physiology Network Symposium (Toronto)
Task-dependent neurovascular (un)coupling in moyamoya disease: implications for CO_2 reactivity studies

26 Jun 2014 Department of Psychology, University of Victoria
Disentangling blood supply and brain function in cerebrovascular disease using quantitative functional MRI

3 Jun 2014 4th Alberta Imaging Symposium (Edmonton)
Disentangling blood supply from brain function: advanced fMRI techniques applied to cerebrovascular disease

12 Apr 2012 Atlantic endMS Regional Research and Training Centre Journal Club (Halifax)
Brain connectivity and cognitive function in multiple sclerosis
Co-presented with Magdalena Wojtowicz

16 May 2011 Brain Imaging Centre lecture series, Montreal Neurological Institute
Can fMRI detect activation in white matter?

9 Feb 2010 Kanwisher lab meeting, Massachusetts Institute of Technology
White matter fMRI

15 Jun 2007 Seminar series, Institute for Biodiagnostics, NRC (Winnipeg, Manitoba)
Can multimodal brain imaging detect interhemispheric transfer?

Research-Related Training Courses and Certifications

2014 Level 2 MRI operator
Seaman Family MRI Research Centre, University of Calgary

2013 RespirAct™ Training & Certification Course (gas manipulations and end-tidal measurements)
Thornhill Research Inc., Toronto

2008 FSL Course (MRI data analysis)
Queensland Brain Institute, University of Queensland

2005 BrainVision User Workshop (EEG data analysis)
Lisbon, Portugal

Awards and Honours

Faculty Awards

2021 St. Francis Xavier University Research, Publication, or Teaching Award

Postdoctoral Fellowships

2016-2017	Alberta Innovates-Health Solutions Postgraduate Fellowship
2014-2016	Alberta Innovates-Health Solutions Postgraduate Fellowship (incentive program)
2014-2016	NSERC Postdoctoral Fellowship
2014-2016	NSERC Collaborative Research and Training Experience (CREATE) International and Industrial Imaging Training (I3T) Fellowship
2014	Multiple Sclerosis Society of Canada Postdoctoral Fellowship (declined)
2012-2013	Canadian Imperial Bank of Commerce Fellowship in Brain Imaging

Graduate Scholarships

2010-2011	Izaak Walton Killam Predoctoral Scholar (2 x $25 000)
2008-2010	NRC Graduate Student Scholarship Supplement – Doctoral (3 x $7 500)
2009-2010	President's Award – Dalhousie University ($12 039)
2008-2009	NSERC Alexander Graham Bell Canada Graduate Scholarship – Doctoral (2 x $35 000)
2008	L'Oréal-UNESCO "For Women in Science" Mentor Fellowship ($5 000)
2008	Molly Neuroscience Traineeship – Dalhousie University ($8 000)
2006-2007	NSERC Post-Graduate Scholarship – Masters ($17 300)
2005-2009	Honorary Izaak Walton Killam Predoctoral Scholar ($2 700)
2005-2007	NRC Graduate Student Scholarship Supplement – Masters (2 x $5 000)
2005-2006	Julie Payette NSERC Graduate Research Scholarship ($25 000)
2005	D.O. Hebb Post-Graduate Prize ($1 000)

Honours

2011	Top student poster (white matter study group) – 19th Scientific Meeting of the International Society for Magnetic Resonance in Medicine
2009	Fellow of the Summer Institute in Cognitive Neuroscience University of California, Santa Barbara
2008	Top 80 Women to Watch – Chatelaine Magazine
2007	Canadian Psychological Association Certificate of Academic Excellence – Masters Thesis

Travel and Conference Registration Awards

2016	Travel award - 2016 International Conference for Promoting Healthy Brain Aging and Preventing Dementia ($350)
2014	Educational Stipend – 22nd Scientific Meeting of the International Society for Magnetic Resonance in Medicine ($445 USD)

2014	Hotchkiss Brain Institute REALISE (Research, Education and Leadership in Neuroscience) External Module Registration funding ($500)
2012	Atlantic endMS Regional Research and Training Centre Trainee Travel Award ($1 993)
2011	Dalhousie Association of Graduate Students Travel Grant ($100)
2011	Educational Stipend – 19th Scientific Meeting of the International Society for Magnetic Resonance in Medicine ($450 USD)
2010	Trainee Abstract Award – 16th Annual Meeting of the Organization for Human Brain Mapping ($600 USD)
2009	Nova Scotia Health Research Foundation Research Capacity Award ($793)
2008	Trainee Abstract Award – 14th Annual Meeting of the Organization for Human Brain Mapping ($1 000 USD)
2007-2008	Dalhousie Faculty of Graduate Studies Travel Grant (2 x $750)
2007	Educational Stipend – 15th Scientific Meeting of the International Society for Magnetic Resonance in Medicine ($638 USD)

Undergraduate Scholarships and Awards

2004	Dalhousie Neuroscience Institute Prize ($300)
2003	Dalhousie University Lilyan E. White Prize in Neuroscience ($200)
2001-2005	Dalhousie University renewable entrance scholarship (4 x $5 000)
2001-2005	Faculty of Science Dean's List

Teaching and Mentoring

Academic Teaching

St. Francis Xavier University

PSYC 292: Statistics for Psychology Research
Instructor, lecture & laboratory (2021, 2022)

PSYC 394: Advanced Statistics for Psychology Research
Instructor, lecture & laboratory (2020, 2021)

PSYC 421: Advanced Topics in Cognition (Cognitive Neuroscience)
Instructor, seminar (2021)

Guest Lectures

MDSC 689.11: Medical Imaging Applications, University of Calgary
Topic: MRI and fMRI (2016)
Topic: Diffusion MRI (2014)

NEURO 451: Model Systems in Neurobiology, University of Calgary
Topic: MRI and fMRI (2014, 2015)

PSYO/NESC 3137: Research Methods in Cognitive Neuroscience, Dalhousie University
Topic: ERP source localization (2010)

Lab Instructorships

PSYO 2000: Methods in Experimental Psychology, Dalhousie University (2008)

Teaching Assistantships

PSYO 2501: Statistical Methods, Dalhousie University (2008)
Provided small group and one-on-one support to students during office hours

PSYO/NESC 3137: Research Methods in Cognitive Neuroscience, Dalhousie University (2006)
Led lab activities
Provided small group and one-on-one support to students during office hours

Teaching – Professional Development Completed (Selected)

2021-09-02	Moodle: H5P, Workshop Module, and Media Gallery Module Teaching and Learning Centre, St. Francis Xavier University
Nov 2021	Teaching Retreat: Black Students Matter Teaching and Learning Centre, St. Francis Xavier University
May 2021	Teaching Retreat: Mawita'yk Mawkina'masultimk (Come together; learn together) Teaching and Learning Centre, St. Francis Xavier University
2020-2021	Mentee in the Guiding Wings Program Teaching and Learning Centre, St. Francis Xavier University
2020-2021	Various Maple League teaching and learning workshops, including: *Course Planning I: The Story of Your Course* (2020-07-07) *Course Planning II: Constructive Alignment* (2020-07-09) *High-Impact Practices* (2022-07-08) *Anti-Black Racism in Education* (2020-07-16) *First Generation Students* (2020-07-21) *Open Educational Resources* (2021-03-04 and 2021-03-11)
Summer 2020	Participant, Developing Our Courses Together Online Remotely (DOCTOR) Faculty Development Committee, St. Francis Xavier University
2013	Instructional Skills Workshop (four-day workshop on evidence-based teaching) Teaching and Learning Centre, University of Calgary

Open Educational Resources

Adapted Answering Questions with Data textbook

Adapted and added content to Answering Questions with Data lab manual

Contributed to Data Management Syllabus (open educational resource)

Contributed to Decentering Whiteness within Research Methods Courses (open educational resource)

Student and Highly Qualified Personnel Supervision

Master's students

2021-present J. Wang (co-supervision with Dr. Jacob Levman)
Computer Science, St. Francis Xavier University

2014-2016 J. Bird (co-supervision with Dr. Bruce Pike)
Medical Sciences, University of Calgary
Subsequent MD at the University of Calgary

Honours students

2022-present H. Keenan
Psychology, St. Francis Xavier University

2020-2021 K. Isenor (co-supervision with Dr. Conor Barker)
Psychology, St. Francis Xavier University

2011-2012 L. Dunphy (co-supervision with Dr. Aaron Newman)
Psychology and Neuroscience, Dalhousie University
Subsequent MSc at Western University and MSc (Audiology) at Dalhousie University

2009-2010 H. Dahn (co-supervision with Dr. Chris Bowen)
Physics, Dalhousie University
Subsequent MD at Dalhousie University

2008 C. Wolfe (co-supervision with Dr. Ryan D'Arcy)
Psychology and Neuroscience, Dalhousie University

2008 V. Versteeg (co-supervision with Dr. Ryan D'Arcy)
Psychology and Neuroscience, Dalhousie University

2006-2007 J. Cameron-Vendrig (co-supervision with Dr. Ryan D'Arcy)
Psychology and Neuroscience, Dalhousie University
Subsequent MD at Queen's University

Summer Research Students

2022 E. Draper (co-supervision with Dr. Conor Barker)
Psychology, St. Francis Xavier University

2022 H. Burgess (co-supervision with Dr. Conor Barker)
Psychology, St. Francis Xavier University

2022 S. Kenny (co-supervision with Dr. Conor Barker)
Psychology, St. Francis Xavier University

2022 C. Oleksiuk, **VAST Patient Engagement Stipend** (co-supervision with Dr. AmanPreet Badhwar, Université de Montréal)
Psychology, St. Francis Xavier University

2022 H. Bright-Doucette, **VAST Experiential Learning Stipend** (placement: We'koqma'q First Nation Health Centre)
Psychology, St. Francis Xavier University

2021 T. Pye
Psychology, St. Francis Xavier University

2021 H. Keenan, **Scotia Scholars Award**
Psychology, St. Francis Xavier University

2021 K. Isenor (co-supervision with Dr. Conor Barker)
Psychology, St. Francis Xavier University

2014 A. Kuczynski (co-supervision with Dr. Bruce Pike)
University of Calgary

Co-op Students (Engineering)

2019 H. Cooke (co-supervision with Dr. Bruce Pike)
University of Calgary

2018-2019 G. Seasons (co-supervision with Dr. Bruce Pike; one year term)
University of Calgary

2018 M. Taylor (co-supervision with Dr. Bruce Pike)
University of Calgary

2007 N. Pelot (co-supervision with Dr. Ryan D'Arcy)
Dalhousie University
Subsequent PhD in Neural Engineering at Duke University; c*urrently Research Director of the Grill Lab, Duke University*

Research Assistants

2021-2022 G. Seasons BEng, Senior Research Assistant
Psychology, St. Francis Xavier University
Currently completing an MSc in neuroscience at the University of Calgary

2014-2019 Day-to-day supervision of research assistants in Bruce Pike's lab (M. McCowan, M. McLean, K. Sabourin)
University of Calgary

Other HQP Training and Supervision

2021 S. Neville-MacLean (content creator for open educational resources)
Psychology, St. Francis Xavier University

2015-2019 S. Findlater (I provided diffusion MRI analysis training and mentorship to this PhD student)
Neuroscience, University of Calgary

Graduate Student Committees

2021-present N. Saadat, minor comps committee, Department of Psychology, University of Victoria (supervised by Dr. Jodie Gawryluk)

2021-present A. Sheriff, master's student, Department of Psychology, University of Victoria (supervised by Dr. Jodie Gawryluk)

2020-present A. Omidi, master's student, Department of Computer Science, St. Francis Xavier University (supervised by Dr. James Hughes)

Other Teaching – University Environment

14 Jun 2016	Presenter, Seaman Family MRI Research Centre safety refresher, University of Calgary
26 Jun 2015	Leader, hands-on workshop for diffusion MRI analysis, Calgary Analysis Workgroup, University of Calgary
15 Jan 2015	Leader, workshop on analysis for BOLD cerebrovascular reactivity data, Calgary Analysis Workgroup, University of Calgary
2014-2019	Trainer for Level 1 and 2 MRI operator certification, Seaman Family MRI Research Centre, University of Calgary
2014-2016	Co-founder and Lead Coordinator of the Calgary Analysis Workgroup, University of Calgary (monthly workshops on data analysis for MRI)

Other Teaching – Youth Science Outreach

2016	Guest Speaker and Mentor at youth entrepreneurship and innovation camp, MindFuel, Calgary
Spring 2015	Mentor, Coder Dojo (youth computer programming club), Calgary Public Library
2008-2015	Guest Speaker and Mentor for elementary, junior, and senior high school science classes (Halifax and Calgary, six events)
2005-2013	Demonstrator, Tour Guide, and Mentor for youth events in the lab, including Shad Valley, Girl Guides of Canada, and university open houses (Halifax and Montreal, seven events)
2009-2011	Lead Coordinator (2010-2011) and Volunteer Judge (2009) for Dalhousie University's CIHR Brain Bee
2009-2011	Youth Outreach Volunteer for Brain Awareness Week, Society for Neuroscience, Halifax Chapter
2006-2010	Guest Speaker and Mentor at youth science camps and clubs with SuperNOVA at Dalhousie University and Adventures in Engineering and Science, University of Ottawa (six events)
2005-2008	Founding Leader/Mentor of Industry, Technology and Science (ITS) for GIRLS! SuperNOVA at Dalhousie University *This is a monthly all-girl science and technology adventure club (ages 10-14) that was the winner of the Canadian Women's Foundation Girls' Fund grant.*
2006-2008	Instructor, Actua science and engineering camps (week-long day camps at Ottawa Boys and Girls Club, Ontario; Charlottetown Boys and Girls Club, Prince Edward Island; Indian Brook First Nation, Nova Scotia; Native Council of Prince Edward Island; Pictou Landing First Nation, Nova Scotia)
Fall 2007	Head Instructor for Actua science clubs, Wabano Aboriginal Health Centre and Ottawa Inuit Children's Centre (Ottawa)
2006	Lead Organizer, Thinking about Neuroscience with Dr. Roberta Bondar (special youth outreach event for over 120 girls and their parents, Halifax)

Professional Activities and Service

Professional Associations

2007-2016, 2021-present	Member, Organization for Human Brain Mapping
2014-2015	Member, University of Calgary Academic Women's Association
2005-2015	Member, International Society for Magnetic Resonance in Medicine
2012	Member, Society for Neuroscience
2005	Member, Society for Psychophysiological Research

Editorial Service

Ad-hoc	Reviewer, NeuroImage (10 articles)
Ad-hoc	Reviewer, Journal of Magnetic Resonance Imaging (4 articles)
Ad-hoc	Reviewer, Multiple Sclerosis Journal (1 article)
Ad-hoc	Reviewer, Science Advances (1 article)
Ad-hoc	Reviewer, Human Brain Mapping (1 article)
Ad-hoc	Reviewer, Cerebral Cortex (1 article)
Ad-hoc	Reviewer, Magnetic Resonance Imaging (1 article)
Ad-hoc	Reviewer, PLOS One (1 article)
Ad-hoc	Reviewer, Journal of Neuroscience Methods (1 article)
Ad-hoc	Reviewer, Frontiers in Neuroinformatics (1 article)
Ad-hoc	Reviewer, Frontiers in Physiology (1 article)
2013-2014, 2018	Abstract reviewer, Annual Meetings of the Organization for Human Brain Mapping

Service to the Professional Community

2022-present	Member, Executive Committee **Vas**cular Cognitive Impairment **T**raining (VAST) Platform (national, CIHR-funded Health Research Training Platform)
2022	Chair, VAST Summer Student Stipend Selection Committee
2022	Chair, VAST Graduate Student and Postdoctoral Researcher Stipend Selection Committee
2022	Member, Science Atlantic Undergraduate Psychology Conference organizing committee
2022	Organizer, Pre-Conference Hackathon, Science Atlantic Undergraduate Psychology Conference
2021	Member, OER Community of Practice, Maple League

2018-09-25 Attendee, NSERC Athena SWAN workshop (provided feedback on creating a Canadian version of this UK program to address equity, diversity, and inclusion) University of Calgary

University Service

2022 Hiring committee member, tenure-track position in the Interdisciplinary Health Program

Summer 2021 Organizer, Brain Imaging Journal Club (monthly activities)
St Francis Xavier University

2021 Member, working group to develop a Master of Health degree at St. Francis Xavier University

2021 Member, Academic Plan micro-committee, St. Francis Xavier University

2022-03-11 Attendee, President's Action Committee on Anti-Racism (PACAR) consultation session, St. Francis Xavier University

2020- 2021 Neighbours Helping Neighbours (COVID-19 isolation support)
Full support volunteer (delivering groceries, etc., to six students)
Wellness volunteer (phone check-ins for an additional three students)

2020-2021 Mentor, first-year student mentorship program, St. Francis Xavier University (two students)

Departmental Service

2022 Hiring committee member, two tenure-track and three limited term appointments in developmental, social, or health psychology

2021-present Member, curriculum review committee, Department of Psychology, St. Francis Xavier University
Conceived of, developed, administered, and analyzed a survey to ensure student voices are incorporated into the ongoing curriculum redesign

2021 Hiring committee member, limited term appointment in social psychology

2020-present Member, executive committee, Department of Psychology, St. Francis Xavier University

2020-present NSERC representative, Department of Psychology, St. Francis Xavier University

2020-present Student achievement coordinator, Department of Psychology, St. Francis Xavier University

2020-2021 Secretary, Department of Psychology, St. Francis Xavier University

2014-2015 Trainee representative, NSERC CREATE I3T steering committee, University of Calgary

2009-2010 Student representative, Research Ethics Board, Department of Psychology, Dalhousie University

2008-2009 Student representative, Graduate Program Committee, Department of Psychology, Dalhousie University

2005-2006 Student representative, Research Ethics Board, Department of Psychology, Dalhousie University

Speaking Engagements and Media Events

2021 Pay attention to this: The neuroscience of ADHD
Professional development event for BEd students, St. Francis Xavier University

2016 Adult neuroplasticity: a double-edged sword
Outreach presentation to the staff of Alpha House Society, a Calgary-based housing and addictions non-profit organization

2016 Adult neuroplasticity: a double-edged sword
Outreach presentation to the senior leadership team of the Calgary Urban Project Society (CUPS), an anti-poverty non-profit organization

2016 The Robot and MRI study
Outreach presentation to the Stroke Recovery Association (Calgary)

2014 Guest Speaker at the Cumming School of Medicine funding announcement, University of Calgary

2014 Guest Speaker at the Campus Alberta Innovates Program (CAIP) chair announcement for Profs. Bruce Pike and Marc Strous (Calgary)

2010 Student spokesperson for the Molly Appeal fundraising campaign, Dalhousie Medical Research Foundation

2008 Guest Speaker at the Canadian Women's Foundation luncheon (Halifax)

2008 Tour Guide/Demonstrator for the grand opening of the Biomedical MRI Research Laboratory, National Research Council, Halifax (including special guest the Hon. Peter MacKay, Minister of National Defence)