Erin L. Mazerolle CURRICULUM VITAE

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Research Interests

Neurovascular coupling in the human brain

Physiological underpinnings of cognition and functional brain reorganization

Brain connectivity and distributed networks involved in cognition and behaviour

Improving diagnostics and assessments of neurological disease with brain imaging

Education & Training

2012-present Postdoctoral scholar (Advisor: Prof. Bruce Pike)
Hotchkiss Brain Institute and Radiology, University of Calgary
Neurology & Neurosurgery, McGill University
Quantitative fMRI of cerebrovascular dysfunction

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

2005-2007 MSc, Psychology/Neuroscience, Dalhousie University
Supervisor: Prof. Ryan D'Arcy
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
Electrophysiological characterization of temporal lobe activation during visual object recognition

Other Research Experience

Summers 2003-2005 National Research Council (NRC) Women in Engineering and Science Program work terms
Institute for Biodiagnostics (Atlantic), NRC, Halifax, Nova Scotia
Supervisor: Prof. Ryan D'Arcy

2003-2004 Clinical Brain Imaging Program research assistant (part-time)
Department of Psychiatry, Dalhousie University
Supervisor: Dr. Normand Carrey

Summer 2002 Natural Sciences and Engineering Research Council of Canada (NSERC) Undergraduate Student Research Award work term
Department of Psychology, Dalhousie University
Supervisor: Prof. John Connolly

Other Training and Certifications

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

2013 Instructional Skills Workshop
Teaching and Learning Centre, University of Calgary

2013 RespirAct™ Training & Certification Course
Thornhill Research Inc., Toronto

2008 FSL Course
Queensland Brain Institute, University of Queensland

2005 BrainVision User Workshop
Lisbon, Portugal

Research Grants

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
$266 083.39

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
$42 357 / year

Awards and Honours

Postdoctoral Fellowships

2016-present 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 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

Guest lecture on MRI and fMRI

- Medical Imaging Applications (MDSC 689.11), graduate course, Medical Imaging Specialization, University of Calgary (Winter 2016)
- Model Systems in Neurobiology (NEURO 451), undergraduate course, BSc Neuroscience Program, University of Calgary (Fall 2014 and 2015)

Guest lecture on diffusion MRI

- Medical Imaging Applications (MDSC 689.11), graduate course, Medical Imaging Specialization, University of Calgary (winter 2014)

Guest lecture on ERP source localization

- Research Methods in Cognitive Neuroscience (PSYO/NESC 3137), undergraduate course, Department of Psychology, Dalhousie University (Fall 2010)

Teaching assistantships

- Methods in Experimental Psychology (PSYO 2000), undergraduate course, Department of Psychology, Dalhousie University (Fall 2008)
- Statistical Methods (PSYO 2501), undergraduate course, Department of Psychology, Dalhousie University (Winter 2008)
- Research Methods in Cognitive Neuroscience (PSYO/NESC 3137), undergraduate course, Department of Psychology, Dalhousie University (Winter 2006)

Student and Highly Qualified Personnel Supervision

2015-present Diffusion MRI analysis mentor, neuroscience PhD student (S. Findlater)

2014-2016 Co-supervisor, medical science master's student (J. Bird)
- Currently in the MD program at University of Calgary

2014-2015 Day-to-day supervision of research assistants (M. McCowan and M. McLean)

2014 Supervisor, biology/health sciences summer student (A. Kuczynski)

2011-2012 Co-supervisor, psychology honours thesis (L. Dunphy)
- Subsequent MSc at Western University (2014)

2009-2010 Co-supervisor, physics honours thesis (H. Dahn)

2008 Co-supervisor, neuroscience honours thesis (C. Wolfe)

2008 Co-supervisor, neuroscience honours thesis (V. Versteeg)

2007 Co-supervisor, electrical engineering co-op student (N. Pelot)
- Currently pursuing a PhD in Neural Engineering at Duke

2006-2007 Co-supervisor, neuroscience honours thesis (J. Cameron-Vendrig)

Other Teaching – University Environment

Jun 14, 2016 Presenter, Seaman Family MRI Research Centre safety refresher, University of Calgary

Jun 26, 2015 Leader, hands-on workshop for diffusion MRI analysis, Calgary Analysis Workgroup, University of Calgary

Jan 15, 2015 Leader, workshop on analysis for BOLD cerebrovascular reactivity data, Calgary Analysis Workgroup, University of Calgary

2014-present 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 – 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

Editorial Service

Ad-hoc	Reviewer, NeuroImage (6 articles)
Ad-hoc	Reviewer, Cerebral Cortex (1 article)
2013-2014	Abstract reviewer, Annual Meetings of the Organization for Human Brain Mapping

Professional Associations

2007-2016	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

Committees

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

2015	*Adult neuroplasticity: a double-edged sword* Outreach presentation to the senior leadership team of the Calgary Urban Project Society (CUPS)
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)

Publications and Presentations

Invited Talks

Apr 19, 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

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

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

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

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

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

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

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

Research Articles

1. **Mazerolle EL**, Ma Y, Sinclair D, Pike GB (2016): Impact of abnormal cerebrovascular reactivity on BOLD fMRI: a preliminary investigation of Moyamoya disease. *Clinical Physiology and Functional Imaging,* DOI: 10.1111/cpf.12387.
2. **Mazerolle EL**, Marchand Y (2015): TypingSuite: integrated software for presenting stimuli, and collecting and analyzing typing data. *Journal of Psycholinguistic Research*, 44: 127-139.
3. 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.
4. 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.

5. 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.
6. 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.
7. **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.
8. **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.
9. 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.
10. 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.
11. Gawryluk JR, **Mazerolle EL**, Brewer KD, Beyea SD, D'Arcy RCN (2011): Investigation of fMRI activation in the internal capsule. *BMC Neuroscience*, 12: 56.
12. **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
13. 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.
14. **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.
    - **Highly accessed article** based on Biomed Central access statistics
15. 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.
16. **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.

Review Articles

1. 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.

2. Gawryluk JR*, **Mazerolle EL***, 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.
*Co-first authors

Refereed Abstracts (podium presentations)

1. **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-CR changes. *3rd Whistler Scientific Workshop on Brain Functional Organization, Connectivity, and Behaviour* (Whistler-Blackcomb, Canada).
2. **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).
3. **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)

1. Bird JE, **Mazerolle EL**, Luh WM, 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).
2. 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).
3. 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).
4. 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).
5. **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. 2016 International Conference for Promoting Healthy Brain Aging and Preventing Dementia (Banff, Canada).
6. **Mazerolle EL**, McLean MA, Williams RJ, Berman AJL, Luh WM, 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).
7. 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).
8. Williams RJ, **Mazerolle EL**, MacDonald ME, Luh WM, 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).

9. 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).

10. 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).

11. **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.

12. 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).

13. **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.

14. **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.

15. 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-ECTRIMS Meeting* (Boston, USA).

16. 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).

17. 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.

18. **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).

19. 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).

20. 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).

21. **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).

22. **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).

23. 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).

24. 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).

25. 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).

26. 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).

27. 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).

28. 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).

29. **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).

30. 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).

31. 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).

32. 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).

33. **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).

34. **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).

35. **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).
36. **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).
37. 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).
38. 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).
39. **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).
40. **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**, 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.
2. **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.
3. **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.
4. **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.
5. **Mazerolle EL**, Marchand Y, Keselj V (2009): Classification of keystroke dynamics. *Annual In-House Conference*, Psychology Department, Dalhousie University.
6. **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.
7. **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.

References

Available on request.