

**Contact**

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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

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**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

2014-2016	CIHR Catalyst Grant (Secondary Analysis of Neuroimaging Databases) <i>Pre-symptomatic biomarkers for Alzheimer's disease: structural and functional changes in white matter</i> Gawryluk JR (PI), <b>Mazerolle EL</b> , Ritchie LJ, Fisk JD \$42 357 / year
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## Awards and Honours

### *Postdoctoral Fellowships*

2014-present	NSERC Postdoctoral Fellowship
2014-present	Alberta Innovates-Health Solutions Postgraduate Fellowship (incentive program)
2014-present	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*

- 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*

Fall 2014	Model Systems in Neurobiology (NEURO 451) guest lecturer Topic: MRI and fMRI Undergraduate course, BSc Neuroscience Program, University of Calgary
Winter 2014	Medical Imaging Applications (MDSC 689.11) guest lecturer Topic: Diffusion MRI Graduate course, Medical Imaging Specialization, University of Calgary
Fall 2010	Research Methods in Cognitive Neuroscience (PSYO/NESC 3137) guest lecturer Topic: ERP source localization Undergraduate course, Department of Psychology, Dalhousie University
Fall 2008	Methods in Experimental Psychology (PSYO 2000) teaching assistant Undergraduate course, Department of Psychology, Dalhousie University
Winter 2008	Statistical Methods (PSYO 2501) teaching assistant Undergraduate course, Department of Psychology, Dalhousie University
Winter 2006	Research Methods in Cognitive Neuroscience (PSYO/NESC 3137) teaching assistant Undergraduate course, Department of Psychology, Dalhousie University

### *Student and Highly Qualified Personnel Supervision*

2015-present	Diffusion MRI analysis mentor, neuroscience PhD student (Sonja Findlater)
2014-present	Co-supervisor, medical science master's student (Jaimie Bird)
2014-2015	Day-to-day supervision of research assistants (Michelle McCowan and Melany McLean)
2014	Supervisor, biology/health sciences summer student (Alexa Kuczynski)
2011-2012	Co-supervisor, psychology honours thesis (Lauren Dunphy) <ul style="list-style-type: none"> <li>• Subsequent MSc at Western University (2014)</li> <li>• Currently a research assistant at Dalhousie University</li> </ul>
2009-2010	Co-supervisor, physics honours thesis (Hannah Dahn)
2008	Co-supervisor, neuroscience honours thesis (Caitlin Wolfe)
2008	Co-supervisor, neuroscience honours thesis (Vanessa Versteeg)
2007	Co-supervisor, electrical engineering co-op student (Nicole Pelot) <ul style="list-style-type: none"> <li>• Currently a Fullbright scholar pursuing a PhD in Neural Engineering at Duke University</li> </ul>
2006-2007	Co-supervisor, neuroscience honours thesis (Julia Cameron-Vendrig)

### *Other Teaching – University Environment*

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 Co-founder and Lead Coordinator of the Calgary Analysis Workgroup, University of Calgary (monthly workshops on data analysis for MRI)
- 2014-present Trainer for Level 1 and 2 MRI operator certification, Seaman Family MRI Research Centre, University of Calgary

### ***Other Teaching – Science Outreach***

- 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)
- 2013-2014 Abstract reviewer, Annual Meetings of the Organization for Human Brain Mapping

#### ***Professional Associations***

- 2014-2015 Member, University of Calgary Academic Women's Association
- 2005-2015 Member, International Society for Magnetic Resonance in Medicine

- 2007-2015 Member, Organization for Human Brain Mapping
- 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**

- 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***

- June 2, 2015 International Imaging Cerebral Physiology Network Symposium (Toronto)  
*Task-dependent neurovascular (un)coupling in moyamoya disease: implications for CO<sub>2</sub> 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 4<sup>th</sup> 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**, Marchand Y (2015): TypingSuite: integrated software for presenting stimuli, and collecting and analyzing typing data. *Journal of Psycholinguistic Research*, 44: 127-139.
2. 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.
3. 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.
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. 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.
6. **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.
7. **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.
8. 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.
9. 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.
10. Gawryluk JR, **Mazerolle EL**, Brewer KD, Beyea SD, D'Arcy RCN (2011): Investigation of fMRI activation in the internal capsule. *BMC Neuroscience*, 12: 56.
11. **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
12. 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.

13. **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
14. 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.
15. **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**, 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).
2. **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. **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) #3571.
2. MacDonald ME, Berman A, Williams R, **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).
3. 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).
4. Mayo C, Frazier J, **Mazerolle E**, Ritchie L, Fisk J, Gawryluk J (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).



5. 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).
6. **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.
7. **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.
8. 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).
9. Stikov N, Giorgio A, Campbell JSW, **Mazerolle EL**, De Stefano N, Pike GB (2013): Magnetization transfer ratio tractometry in multiple sclerosis. *21th Scientific Meeting of the International Society for Magnetic Resonance in Medicine* (Salt Lake City, USA) #4846.
10. 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).
11. **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).
12. 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).
13. **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).
14. 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).
15. 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).
16. **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).

17. 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).
18. 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).
19. 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).
20. 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).
21. **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).
22. 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).
23. 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).
24. 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).
25. **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).
26. **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).
27. **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).
28. **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).
29. 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).
30. 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).

31. **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).
32. **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. *10<sup>th</sup> 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. *4<sup>th</sup> Alberta Imaging Symposium*, Edmonton, Canada.
4. **Mazerolle EL**, Wojtowicz MA, Omissade 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.