

# CURRICULUM VITAE

June 2017

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## *Chase Russell Figley*

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University of Manitoba  
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### ACADEMIC APPOINTMENTS:

Assistant Professor (Tenure-Track)	<b>University of Manitoba</b> Department of Radiology	<i>September 2013 - present</i>
Assistant Professor (Core Member)	<b>University of Manitoba</b> Biomedical Engineering (BME) Graduate Program	<i>September 2013 - present</i>
Principal Investigator	<b>Winnipeg Health Sciences Centre</b> Kleysen Institute for Advanced Medicine Neuroscience Research Program and Division of Diagnostic Imaging	<i>September 2013 - present</i>
Research Scientist (Adjunct)	<b>Johns Hopkins University</b> Department of Psychological & Brain Sciences	<i>September 2013 - present</i>
Assistant Professor (Adjunct)	<b>University of Manitoba</b> Department of Physiology and Pathophysiology	<i>September 2015 - present</i>
Assistant Professor (Adjunct)	<b>University of Manitoba</b> Department of Psychology	<i>April 2016 - present</i>

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### EDUCATION:

CIHR Postdoctoral Fellowship	<b>Johns Hopkins University</b>  Department of Psychological & Brain Sciences Solomon H. Snyder Department of Neuroscience F.M. Kirby Center for Functional Brain Imaging  Supervisor: Dr. Susan M. Courtney, PhD	<i>September 2010 - August 2013</i>
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Ph.D.	<b>Queen's University</b>	September 2005 - October 2010
	Centre for Neuroscience Studies	
	<b>Thesis: Improved Methods for Motion-Compensating and Event-Related Spinal Functional Magnetic Resonance Imaging (fMRI)</b>	
	Supervisor: Dr. Patrick W. Stroman, PhD	
	External Examiner: Dr. Alex L. MacKay, PhD	
B.Sc. Honors	<b>University of Saskatchewan</b>	September 2001 - May 2005
	Department of Chemistry	
	<b>Thesis: A study of the chemical reactions between tert-butyl hydroperoxide and 2,2'-Diphenyl-1-picrylhydrazyl</b>	
	Supervisor: Dr. John A. Weil, PhD	
	Co-Supervisor: Dr. Marek Majewski, PhD	

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## GRANTS AND RESEARCH AWARDS:

### PRINCIPAL INVESTIGATOR

- Natural Sciences and Engineering Research Council (NSERC) Discovery Grant:**

September 2016 – September 2021  
\$140,000 (\$28,000 per annum)

*“Development and application of cognitive neuroimaging tools for quantitative white matter analyses”*
- University of Manitoba (UofM) University Collaborative Research Program:**

January 2016 – January 2017  
\$100,000 (total)  
\$25,000 (awarded) plus an additional \$75,000 (matching funds and in-kind contributions)

*“Cognitive performance in Multiple Sclerosis: Effects of white matter structure and resting-state functional connectivity”*
- Health Sciences Centre Foundation (HSCF) General Operating Grant:**

September 2014 – September 2016  
\$66,750 (\$33,375 per annum)

*“Investigating the neural basis of cognitive decline in Multiple Sclerosis using high-field structural and functional magnetic resonance imaging”*
- University of Manitoba Startup Grant:**

September 2013 – September 2016  
\$150,000 (\$50,000 per annum)

*“Figley Neuroimaging Lab Startup Funding”*

## PRINCIPAL INVESTIGATOR SUBMITTED (UNDER REVIEW)

1. **CIFAR Global Scholars Program:** January 2018 – January 2020  
\$100,000  
*“Azrieli Program in Brain, Mind and Consciousness”*
2. **Health Sciences Centre Foundation Operating Grant:** September 2018 – September 2020  
\$70,000  
*“Development of automated white matter and blood vessel mapping tools based on a novel 3D centerline extraction approach”*
3. **Research Manitoba New Investigator Operating Grant:** September 2018 – September 2021  
\$225,000  
*“Assessing structural and functional connectivity relationships in healthy, damaged, and diseased brains using large-scale, multi-modal neuroimaging databases and novel network neuroscience approaches”*

## CO-INVESTIGATOR

1. **Multiple Sclerosis (MS) Society of Canada Research Operating Grant:** May 2016 – May 2019  
\$266,100 (\$88,700 per annum)  
*“Comorbidity, Cognition and Multiple Sclerosis (C-CoMS)”*  
  
PI: Ruth Ann Marrie, University of Manitoba, Department of Internal Medicine (Neurology)
2. **Brain Canada Platform Support Grant:** September 2014 – September 2017  
\$300,000 (\$100,000 per annum)  
*“The Manitoba Neuroimaging Platform”*  
  
PI: Chris Anderson, University of Manitoba, Department of Pharmacology & Therapeutics
3. **University of Manitoba Department of Surgery Pilot Grant Competition:** January 2014 – January 2015  
\$14,000  
*“Novel Neuroimaging Assessment of Cerebrovascular Reactivity and Default-Mode Networks in Adolescent Sports-Related Concussion”*

PI: Patrick McDonald, University of  
Manitoba, Department of Surgery

**CO-INVESTIGATOR SUBMITTED (UNDER REVIEW)**

1. **Canada Foundation for Innovation (CFI)  
Innovation Fund Grant:** September 2017 – September 2022  
\$15,579,000  
  
“The Manitoba Centre for Neural  
Connectomics”  
  
PI: Chris Anderson, University of Manitoba,  
Department of Pharmacology & Therapeutics
2. **Natural Sciences and Engineering  
Research Council (NSERC) Collaborative  
Research and Training Experience  
(CREATE) Grant:** September 2017 – September 2023  
\$2,536,100  
  
“Global Health Imaging Incubator (GHI<sup>2</sup>)”  
  
PI: Stephen Pistorius, University of  
Manitoba, Department of Physics &  
Astronomy

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**SCHOLARSHIPS AND FELLOWSHIPS:**

1. **CIHR Postdoctoral Fellowship** September 2010 – September 2013  
\*Ranked in the top 2% (10<sup>th</sup> of 500 applications) \$150,000 (\$50,000 per annum)
2. **Johns Hopkins University Fellowship** September 2010 – September 2013  
\$3,000 (\$1,000 per annum)
3. **CIHR Fredrick Banting & Charles Best  
Canada Graduate Scholarship** September 2008 – September 2010  
\$70,000 (35,000 per annum)
4. **Queen’s University Award of  
Excellence for Neuroscience Research** September 2006 – September 2010  
\$15,000 (\$3,000 per annum)
5. **International Society for Magnetic  
Resonance in Medicine (ISMRM)  
Education and Travel Award** April 2009  
\$600 (one-time award)
6. **Ontario Graduate Scholarship for  
Science and Technology** September 2006 – September 2008  
\$30,000 (\$15,000 per annum)

7. *International Society for Magnetic Resonance in Medicine (ISMRM) Education and Travel Award* May 2008  
\$600 (one-time award)
8. *International Society for Magnetic Resonance in Medicine (ISMRM) Education and Travel Award* May 2007  
\$600 (one-time award)
9. *R.S. McLaughlin Research Fellowship* September 2005 – September 2006  
\$10,000 (one-time award)
10. *University of Saskatchewan Summer Research Scholarship* May 2005 – September 2005  
\$7,000 and laboratory placement
11. *University of Saskatchewan J.M. Pepper Honors Research Award* May 2005  
Book, Plaque, and \$200
12. *University of Saskatchewan Nixon Summer Research Scholarship* May 2004 – June 2004  
\$6,000 and laboratory placement
13. *University of Saskatchewan Entrance Scholarship* September 2001 – September 2002  
\$2,500 (one-time award)

## PEER-REVIEWED PUBLICATIONS:

*\* Names of my staff members and trainees are underlined in each section below*

### IN PRINT

1. TD Figley, BM Moghadam, N Bhullar, J Kornelsen, SM Courtney, and **CR Figley**. “Probabilistic white matter atlases of human auditory, basal ganglia, language, precuneus, sensorimotor, visual, and visuospatial networks.” *Frontiers in Human Neuroscience* 11(306): 1-12 (2017).
2. MS Alexander, N Kozyrev, **CR Figley**, and JS Richards. “Altered spinal cord activity during sexual stimulation in women with SCI: a pilot fMRI study.” *Spinal Cord Series and Cases* 3: 16041 (2017).
3. AS Shatil, KM Matsuda, and **CR Figley**. “A method for whole brain ex vivo magnetic resonance imaging with minimal susceptibility artifacts.” *Frontiers in Neurology* 7(208): 1-10 (2016).
4. **CR Figley**, JSA Asem, EL Levenbaum, and SM Courtney. “Effects of body mass index and body fat percent on default mode, executive control, and salience network structure and function.” *Frontiers in Neuroscience* 10(234): 1-23 (2016).

*\* Featured in several media outlets, including the Montreal Gazette, Vancouver Sun, and National Post.*

5. MS Alexander, N Kozyrev, RL Bosma, **CR Figley**, JS Richards, and PW Stroman. "fMRI localization of spinal cord processing underlying female sexual arousal." *Journal of Sex & Marital Therapy* 42(1): 36-47 (2016).
6. AS Shatil\*, S Younas\*, H Pourreza, and **CR Figley**. "Heads in the cloud: A primer on neuroimaging applications of high performance computing." *Magnetic Resonance Insights* 8(Suppl 1): 69-80 (2015). \*These authors contributed equally to this work.
7. TD Figley\*, N Bhullar\*, SM Courtney, and **CR Figley**. "Probabilistic atlases of default mode, executive control and salience network white matter tracts: An fMRI-guided diffusion tensor imaging and tractography study." *Frontiers in Human Neuroscience* 9(585): 1-20 (2015). \*These authors contributed equally to this work.
8. MJ Ellis, **CR Figley**, WA Mutch, E Massicotte, DJ Mikulis, M Essig, and CH Tator. "Neuroimaging in sports-related concussion management: Current status and future directions." *Current Research: Concussion* 1(1): 33-39 (2014).
9. CK Jones, **CR Figley**, PCM van Zijl, PA Calabresi, and SM Courtney. "Chemical exchange saturation transfer imaging in Multiple Sclerosis." *Multiple Sclerosis Journal* 19(10): 1391-1423 (2013).
10. CK Jones, **CR Figley**, PCM van Zijl, PA Calabresi, and SM Courtney. "Chemical exchange saturation transfer imaging in Multiple Sclerosis." *International Journal of MS Care* 15(Supplement 3): 28 (2013).
11. **CR Figley** and PW Stroman. "Measurement and characterization of the human spinal cord SEEP response using event-related spinal fMRI." *Magnetic Resonance Imaging* 30(4): 471-484 (2012).
12. N Kozyrev, **CR Figley**, M Sipski-Alexander, JS Richards, R Bosma, and PW Stroman. "Neural correlates of sexual arousal in the spinal cords of able-bodied men: A spinal fMRI investigation." *Journal of Sex & Marital Therapy* 38(5): 418-435 (2012).
13. **CR Figley** and PW Stroman. "The role(s) of astrocytes and astrocyte activity in neurometabolism, neurovascular coupling, and the production of functional neuroimaging signals." *European Journal of Neuroscience* 33(4): 577-588 (2011).  

\* Figure 2 from our paper was chosen as the cover art for this issue of EJN.  
 † Ranked 6<sup>th</sup> on EJN's "Most Cited" List (among articles published in 2011 or 2012)
14. **CR Figley**. "Lactate transport and metabolism in the human brain: Implications for the astrocyte-neuron lactate shuttle hypothesis." *Journal of Neuroscience* 31(13): 4768-4770 (2011).
15. **CR Figley**, JK Leitch, and PW Stroman. "In contrast to BOLD: signal enhancement by extravascular water protons as an alternative mechanism of endogenous fMRI signal change." *Magnetic Resonance Imaging* 28(8): 1234-1243 (2010).
16. JK Leitch, **CR Figley**, and PW Stroman. "Applying functional MRI to the spinal cord and brainstem." *Magnetic Resonance Imaging* 28(8): 1225-1233 (2010).

*\*Listed Among ScienceDirect "Top 25 Hottest Articles" (i.e., most downloaded in MRI between April and June 2010).*

17. **CR Figley** and PW Stroman. "Development and validation of retrospective spinal cord motion time-course estimates (RESPITE) for spin echo spinal fMRI: Improved sensitivity and specificity by means of a motion-compensating general linear model analysis." *NeuroImage* 44(2): 421-427 (2009).
18. **CR Figley**, D Yau, and PW Stroman. "Attenuation of Lower-Thoracic, Lumbar, and Sacral Spinal Cord Motion: Implications for Imaging Human Spinal Cord Structure and Function." *American Journal of Neuroradiology* 29(8): 1450-1454 (2008).
19. PW Stroman, **CR Figley**, and CM Cahill. "Spatial normalization, bulk motion correction, and coregistration for functional magnetic resonance imaging of the human cervical spinal cord and brainstem." *Magnetic Resonance Imaging* 26(6): 809-814 (2008).
20. **CR Figley** and PW Stroman. "Investigation of Human Cervical and Upper Thoracic Spinal Cord Motion: Implications for Imaging Spinal Cord Structure and Function." *Magnetic Resonance in Medicine* 58(1): 185-189 (2007).

#### **IN PRESS (ONLINE AHEAD OF PRINT)**

21. AY Ma, RC Vitorino, SP Hojjat, AD Mulholland, L Lee, TJ Carroll, CG Cantrell, **CR Figley**, and RI Aviv. "The relationship between white matter tract damage and grey matter perfusion in large-scale functionally-defined networks in multiple sclerosis." *Multiple Sclerosis Journal* (In Press).

#### **SUBMITTED (UNDER REVIEW)**

22. AD Mulholland, RC Vitorino, SP Hojjat, AY Ma, L Zhang, L Lee, TJ Carroll, CG Cantrell, **CR Figley**, and RI Aviv. "Spatial correlation of pathology and perfusion changes within the cortex and white matter in Multiple Sclerosis." (Provisionally Accepted – Pending Revisions).
23. S Younas and **CR Figley**. "Development, Implementation and Validation of a Medial Axis Extraction Algorithm for Complex 3D Objects." (Submitted – Under Review).
24. AS Shatil, N Uddin, KM Matsuda, and **CR Figley**. "Quantitative ex vivo MRI changes due to progressive formalin fixation in whole human brain specimens: Longitudinal characterization of diffusion, relaxometry, and myelin water fraction measurements at 3T." (Submitted – Under Review).
25. N Uddin and **CR Figley**. "Comparisons between FSE-based T<sub>1</sub>w/T<sub>2</sub>w ratios, GRASE-based T<sub>1</sub>w/T<sub>2</sub>w ratios, and multi-echo GRASE-based myelin water fractions." (Submitted – Under Review).
26. N Uddin and **CR Figley**. "Effect of echo time and T<sub>2</sub>-weighting on T<sub>1</sub>-weighted/T<sub>2</sub>-weighted MRI ratio mapping at 3T." (Submitted – Under Review).

## IN PREPARATION

27. LE Lee, E Ljungberg, J Lam, D Li, A Mackay, A Rauscher, A Traboulee, S Kolind, and **CR Figley**. "Comparison of T2 myelin water imaging values obtained on 3T Philips and Siemens MRI systems: Implications for multi-site, cross-platform studies."
28. S Younas, M Martin, SM Courtney, and **CR Figley**. "Quantitative tract integrity profiles (Q-TIPs): A novel toolbox for assessing white matter imaging signals along whole fiber tracts."
29. N Uddin, KG Solar, AS Shatil, S Younas, SM Courtney, J Kornelsen, and **CR Figley**. "Comparisons between diffusion tensor imaging measures, multi-component myelin water fraction measurements, and T1w/T2w ratios."
30. **CR Figley** and SM Courtney. "Assessing individual differences in global and local white matter microstructure using quantitative tract integrity profiles (Q-TIPs)."
31. KG Solar, J Kornelsen, SM Courtney, and **CR Figley**. "Relationships between white matter structure and resting state functional connectivity in large-scale human brain networks."
32. **CR Figley**, TD Figley, J Fisk, C Helmick, J Kornelsen, RA Marrie, E Mazerolle, R Patel, and N Uddin on behalf of the C-COMS Study Group. "Neuroimaging data acquisition and minimal image processing for the Canadian Comorbidities, Cognition and Multiple Sclerosis (C-COMS) Study".

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## CONFERENCE ABSTRACTS AND PROCEEDINGS:

1. N Uddin, SM Courtney, and **CR Figley**. "Echo time optimization for T1-weighted/T2-weighted ratio mapping in the human brain at 3T." *Organization for Human Brain Mapping (OHBM) 23rd Annual Meeting (Vancouver, BC, Canada, June 25-29, 2017)*.
2. N Uddin, KG Solar, AS Shatil, SM Courtney, and **CR Figley**. "Direct comparisons between quantitative magnetic resonance imaging measures in the human brain." *Organization for Human Brain Mapping (OHBM) 23rd Annual Meeting (Vancouver, BC, Canada, June 25-29, 2017)*.
3. KG Solar, SM Courtney, **CR Figley**, and J Kornelsen. "Does structural connectivity really predict functional connectivity in resting state brain networks?" *Organization for Human Brain Mapping (OHBM) 23rd Annual Meeting (Vancouver, BC, Canada, June 25-29, 2017)*.
4. S Younas, SM Courtney, M Martin, and **CR Figley**. "Quantitative Tract Integrity Profiles (QTIPs): A novel neuroimaging toolbox for evaluating along-tract white matter integrity." *The 40<sup>th</sup> Annual Canadian Medical and Biological Engineering Conference (CMBEC40) (Winnipeg, MB, Canada, May 23-26, 2017)*.

\* Best Student Paper Award - 2<sup>nd</sup> Place (\$300 Cash Prize).



5. AS Shatil, K Matsuda, and **CR Figley**. "Effects of formalin fixation on myelin water fraction MRI measurements in human white matter: A novel ex vivo study." *The 40<sup>th</sup> Annual Canadian Medical and Biological Engineering Conference (CMBEC40)* (Winnipeg, MB, Canada, May 23-26, 2017).

\* Best Student Paper Award – 3<sup>rd</sup> Place (\$200 Cash Prize).

6. N Uddin, TD Figley, RA Marrie, and **CR Figley**. "Comparison of multi-echo gradient and spin echo (GRASE) and fast spin echo (FSE) MRI sequences for T1w/T2w ratio mapping." *The 40<sup>th</sup> Annual Canadian Medical and Biological Engineering Conference (CMBEC40)* (Winnipeg, MB, Canada, May 23-26, 2017).
7. KG Solar, J Kornoslen, SM Courtney, and **CR Figley**. "Structural and functional connectivity relationships in the brain: How do they vary between large-scale networks and across individuals?" *Society for Neuroscience (SfN) 46th Annual Meeting* (San Diego, CA, USA, November 12-16, 2016).
8. S Younas, SM Courtney, M Martin, and **CR Figley**. "Quantitative Tract Integrity Profiles (QTIPs): A Novel Toolbox for Assessing Tract-Based White Matter Integrity." *Society for Neuroscience (SfN) 46th Annual Meeting* (San Diego, CA, USA, November 12-16, 2016).
9. N Uddin, KG Solar, AS Shatil, S Younas, SM Courtney, and **CR Figley**. "Microstructural correlates of myelin water fraction, T1w/T2w ratio and diffusion tensor imaging measures in human brain." *Society for Neuroscience (SfN) 46th Annual Meeting* (San Diego, CA, USA, November 12-16, 2016).
10. AS Shatil, K Matsuda, and **CR Figley**. "Characterizing quantitative MRI changes due to formalin fixation: an ex vivo human brain imaging study." *Society for Neuroscience (SfN) 46th Annual Meeting* (San Diego, CA, USA, November 12-16, 2016).
11. LE Lee, E Ljungberg, J Lam, A Mackay, A Rauscher, D Li, A Traboulee, **CR Figley**, and S Kolind. "The Consistency of Myelin-Specific Magnetic Resonance Imaging Across Sites and Scanner Manufacturers in vivo." *Pan-Asian Committee for Treatment and Research in Multiple Sclerosis (PACTRIMS) 9<sup>th</sup> Annual Congress* (Bangkok, Thailand, October 27-29, 2016).
12. TD Figley, BM Moghadam, N Bhullar, and **CR Figley**. "Probabilistic atlases of white matter pathways underlying auditory, language, sensorimotor, and visual networks." *Fifth Biennial Conference on Resting State and Brain Connectivity* (Vienna, Austria, September 21-23, 2016).
13. KG Solar, J Kornoslen, SM Courtney, and **CR Figley**. "Structural and functional connectivity relationships within brain networks: Does the type of structural connectivity measure matter?" *Manitoba Neuroscience Network (MNN) 6th Annual Meeting* (Winnipeg, MB, Canada, June 14-15, 2016).
14. S Younas, SM Courtney, M Martin, and **CR Figley**. "Quantitative Tract Integrity Profiles (QTIPs): A Novel Toolbox for Assessing Tract-Based White Matter Integrity." *Manitoba Neuroscience Network (MNN) 6th Annual Meeting* (Winnipeg, MB, Canada, June 14-15, 2016).

15. N Uddin, KG Solar, AS Shatil, S Younas, SM Courtney, and **CR Figley**. "Microstructural correlates of MRI measures in human brain white matter." *Manitoba Neuroscience Network (MNN) 6th Annual Meeting (Winnipeg, MB, Canada, June 14-15, 2016)*.
16. AS Shatil, K Matsuda, and **CR Figley**. "Characterizing quantitative MRI changes due to formalin fixation: a longitudinally ex vivo human brain imaging study." *Manitoba Neuroscience Network (MNN) 6th Annual Meeting (Winnipeg, MB, Canada, June 14-15, 2016)*.
17. LE Lee, E Ljungberg, J Lam, A Mackay, A Rauscher, D Li, A Traboulsee, **CR Figley**, and S Kolind. "Examining the reproducibility of myelin-specific magnetic resonance imaging across sites and scanner manufacturers." *American Academy of Neurology (AAN) 68<sup>th</sup> Annual Meeting (Vancouver, BC, Canada, April 15-21, 2016)*.
18. S Younas, M Martin, and **CR Figley**. "Quantitative Tract Integrity Profiles (Q-TIPs): A Novel Toolbox for Assessing Tract-Based White Matter Integrity." *BioMedCon 2015 (Winnipeg, MB, Canada, October 30, 2015)*.
19. AS Shatil, K Matsuda, and **CR Figley**. "Characterizing radiology-pathology correlations using ex vivo MRI." *BioMedCon 2015 (Winnipeg, MB, Canada, October 30, 2015)*.
20. N Bhullar, TD Figley, SM Courtney, and **CR Figley**. "fMRI-guided DTI atlases of the default mode, executive control and salience networks." *Organization for Human Brain Mapping (OHBM) 21st Annual Meeting (Honolulu, HI, USA, June 14-18, 2015)*.
21. N Bhullar, TD Figley, SM Courtney, and **CR Figley**. "fMRI-guided DTI atlases of the default mode, executive control and salience networks." *Manitoba Neuroscience Network (MNN) 5<sup>th</sup> Annual Scientific Meeting (Winnipeg, MB, Canada June 12, 2015)*.  
  
\* Best Postdoctoral Fellow Poster – 1<sup>st</sup> Place (\$300 Cash Prize).
22. M Sipski-Alexander, N Kozyrev, RL Bosma, **CR Figley**, JS Richards, and PW Stroman. "fMRI Changes during sexual stimulation in women with SCI versus able-bodied women: A pilot study." *International Spinal Cord Society (ISCoS) 53rd Annual Meeting (Maastricht, The Netherlands, September 2-4, 2014)*.
23. **CR Figley**, EL Levenbaum, JSA Asem, and SM Courtney. "Individual differences in brain structure and functional connectivity related to body mass index (BMI) and body fat percentage (BFP)." *Society for Neuroscience (SfN) 43rd Annual Meeting - Program Number 185.11 (San Diego, CA, USA, November 9-13, 2013)*.
24. CK Jones, **CR Figley**, PCM van Zijl, PA Calabresi, and SM Courtney. "Chemical exchange saturation transfer imaging in Multiple Sclerosis." *Fifth Cooperative Meeting of the Consortium of Multiple Sclerosis Centers (CMSC) and Americas Committee for Treatment Research in Multiple Sclerosis (ACTRIMS) – Program Number P35 (Orlando, FL, USA, May 29 – June 01, 2013)*.
25. **CR Figley**, E Awuah, B Hurst, and SM Courtney. "Individual differences in cognitive performance: Relation to brain structure and function." *Society for*

*Neuroscience (SfN) 42nd Annual Meeting - Program Number 393.25 (New Orleans, LA, USA, October 13-17, 2012).*

26. **CR Figley**, RL Beazer, and PW Stroman. "Epoch to impulse: Developing a method for event-related spinal fMRI." *Proceedings of the American Society of Functional Neuroradiology (ASFNR) 4th Annual Meeting (Las Vegas, Nevada, USA, February 24-26, 2010).*
27. **CR Figley**, JK Leitch, C Nahanni, and PW Stroman. "Elucidating the impulse response function of SEEP contrast in the human spinal cord by means of event-related spin-echo spinal fMRI." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 17th Annual Scientific Meeting (Honolulu, Hawaii, USA, April 18-24, 2009).*
28. N Kozyrev, **CR Figley**, and PW Stroman. "Heart-rate based analysis of fMRI data can reveal 'lost' signal intensity changes in the spinal cord associated with distinct phases of the human sexual response." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 17th Annual Scientific Meeting (Honolulu, Hawaii, USA, April 18-24, 2009).*
29. PW Stroman, B Coe, **CR Figley**, JK Leitch, and DP Munoz. "Attentional modulation of thermal sensory responses in the human spinal cord." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 17th Annual Scientific Meeting (Honolulu, Hawaii, USA, April 18-24, 2009).*
30. JK Leitch, CM Cahill, N Foad-Ghazni, **CR Figley**, and PW Stroman. "Spinal cord and brainstem activation in carpal tunnel syndrome patients in response to noxious stimuli: A spinal fMRI study." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 17th Annual Scientific Meeting (Honolulu, Hawaii, USA, April 18-24, 2009).*
31. **CR Figley** and PW Stroman. "Physiological noise reduction in spinal fMRI from a single-stage, motion-compensating GLM approach." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 16th Annual Scientific Meeting (Toronto, Ontario, Canada, May 3-9, 2008).*
32. D Yau, **CR Figley**, C Nahanni, and PW Stroman. "Examination of cardiac-related motion in the lower-thoracic and lumbar spinal cord." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 16th Annual Scientific Meeting (Toronto, Ontario, Canada, May 3-9, 2008).*
33. PW Stroman, **CR Figley**, N Foad-Ghazni, and N Kozyrev. "The enigma of intermediate and ventral spinal cord activity with thermal sensory stimulation: A spinal fMRI investigation." *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 16th Annual Scientific Meeting (Toronto, Ontario, Canada, May 3-9, 2008).*
34. NA Kozyrev, MS Alexander, JS Richards, **CR Figley**, and PW Stroman. "Mapping a neural model of sexual responses in the human spinal cord with functional magnetic resonance imaging." *Society for Neuroscience (SfN) 38th Annual Meeting - Program Number 577.12 (Washington, DC, USA, November 15-19, 2008).*

35. **CR Figley** and PW Stroman. "Development of a novel method for motion-compensated spinal fMRI." *Proceedings of the 6th Annual Imaging Network of Ontario Conference (Toronto, Ontario, Canada, March 28-29, 2007)*.
36. **CR Figley** and PW Stroman. "**A new method of motion-compensated spinal fMRI: Identifying human spinal cord function with increased sensitivity and reproducibility.**" *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 15th Annual Scientific Meeting (Berlin, Germany, May 19-25, 2007)*.
37. **CR Figley** and PW Stroman. "Characterization of spinal cord motion as a means of reducing errors in spinal fMRI." *Proceedings of the 5th Annual Imaging Network of Ontario Conference (Toronto, Ontario, Canada, April 3-4, 2006)*.
38. **CR Figley** and PW Stroman. "**Characterization of spinal cord motion: A source of errors in spinal fMRI?**" *Proceedings of the International Society for Magnetic Resonance in Medicine (ISMRM) 14th Annual Scientific Meeting (Seattle, Washington, USA, May 6-12, 2006)*.
39. PW Stroman, **CR Figley**, J Kornelsen, C Cahill, K Smith, and R Pokrupa. "Development of spinal fMRI towards a practical tool for assessing spinal cord injury." *International Spinal Research Trust, 9th Research Network Meeting (London, England, September 1-2, 2006)*.
40. **CR Figley**, DF Figley, and V Salares. "Characterization of arsenic and fungal contaminants in the wall cavities of preserved wood foundations." *Proceedings of the 10th International Conference on Indoor Air Quality and Climate (Beijing, China, September 4-9, 2005)*.
41. **CR Figley**, M Majewski, and JA Weil. "Study of the chemical reaction(s) between *tert*-butyl hydroperoxide and 2,2'-Diphenyl-1-picrylhydrazyl." *Proceedings of the 2005 Western Canadian Undergraduate Chemistry Conference (Victoria, British Columbia, Canada, May 5-7, 2005)*.

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## RESEARCH TALKS:

1. **CR Figley**. "Developing and applying new methods to study human white matter connectomes at the network level." Department of Medical Biophysics, Western University (London, Ontario, March 09, 2017).
2. **CR Figley**. "The Role of Diffusion Tensor Imaging (DTI) in Mild Traumatic Brain Injury." Winnipeg Health Sciences Centre, Mild Traumatic Brain Injury Symposium (Winnipeg, Manitoba, February 24, 2017).
3. **CR Figley**. "What's new in human neuroimaging? Recent advances in MRI acquisition, analysis, and applications." Manitoba Neuroscience Network Visiting Speaker and Seminar Series (Winnipeg, Manitoba, January 27, 2017).
4. **CR Figley**. "Relationships between structural and functional brain connectivity in default mode, executive control, and salience networks." Centre for Healthcare Innovation, Clinical Research Information Networking Group (CRINGe) Seminar

Series (Winnipeg, Manitoba, December 01, 2016).

5. **CR Figley.** "Recent advances in white matter imaging: Where we've been, where we are, and where we're going." University of Manitoba, Brain Canada Platform Neuroimaging Mini-Symposium (Winnipeg, Manitoba, October 14, 2016).
6. **CR Figley.** "New Tools for (and Applications of) Human White matter MRI." Winnipeg Health Sciences Centre, Neuroscience Research Program (Winnipeg, Manitoba, April 05, 2016).
7. **AS Shatil and CR Figley.** "Characterizing changes in quantitative MRI measures as a function of formalin fixation: a longitudinal *ex vivo* human brain imaging study." University of Manitoba, Biomedical Engineering Seminar Series (Winnipeg, Manitoba, December 17, 2015).
8. **S Younas and CR Figley.** "Quantitative tract integrity profiles (Q-TIPs): A novel toolbox for assessing tract-based white matter integrity." University of Manitoba, Biomedical Engineering Seminar Series (Winnipeg, Manitoba, September 24, 2015).
9. **CR Figley.** "Stereotaxic atlases and analyses for quantitative white matter imaging." Siemens Healthcare Global Headquarters (Erlangen, Germany, May 13, 2015).
10. **N Buhler and CR Figley.** "Probabilistic atlases of default mode, executive control and salience network white matter tracts: An fMRI-guided diffusion tensor imaging and tractography study." Radiology Resident Research Day (Winnipeg, Manitoba, April 02, 2015).
11. **CR Figley.** "New tools for white matter imaging in Multiple Sclerosis." Joint Department of Neurology and EndMS Research & Training Network Symposium, University of Western Ontario (London, Ontario, February 25, 2015).
12. **CR Figley.** "Novel tract-based methods for analyzing quantitative white matter imaging data." Advanced Spinal Cord Imaging in MS Symposium (Toronto, Ontario, October 25, 2014).
13. **CR Figley.** "Development and applications of advanced Diffusion Tensor Imaging (DTI) methods." Manitoba Neuroscience Network Retreat (Gimli, Manitoba, June 24-25, 2014).
14. **N Buhler and CR Figley.** "Stereotaxic diffusion tensor imaging atlases of default mode, executive control, and salience network white matter tracts." Radiology Resident Research Day (Winnipeg, Manitoba, June 17, 2014).
15. **CR Figley.** "Imaging human brain structure and function: Novel methods & applications." Department of Physics, University of Winnipeg (Winnipeg, Manitoba, January 17, 2014).
16. **CR Figley.** "Development and application of novel fMRI and DTI methods for human neuroimaging in healthy and clinical populations." Department of Radiology, University of Manitoba (Winnipeg, Manitoba, December 14, 2012).

17. **CR Figley.** "fMRI methods, mechanisms and applications: Physiological basis of fMRI signals and neural correlates of cognitive performance in multiple sclerosis." Hotchkiss Brain Institute and Department of Radiology, University of Calgary (Calgary, Alberta, April 16, 2012).
18. **CR Figley.** "Could functional neuroimaging signals reflect astrocytic more than neuronal activity?" Department of Psychology, University of Western Ontario (London, Ontario, December 11, 2009).
19. **CR Figley.** "Old challenges, new methods, and future directions for spinal cord fMRI." F.M. Kirby Research Center for Functional Brain Imaging, Kennedy Krieger Institute, Johns Hopkins Hospital (Baltimore, Maryland, USA, October 01, 2009).
20. **CR Figley.** "Improved sensitivity and reliability of spinal fMRI by removing sources of motion-related physiological noise." *Centre for Neuroscience Studies, Graduate Student Seminar Series (aka "The Friday Fights")* (Queen's University, Kingston, Ontario, Canada, May 04, 2007).
21. **CR Figley.** "Evaluation of spinal cord motion as a source of errors in spinal fMRI." *Queen's University 9<sup>th</sup> Annual Scientific Meeting for Health Sciences Research Trainees* (Queen's University, Kingston, Ontario, Canada, May 30, 2006).
22. **CR Figley.** "Study of the chemical reaction(s) between *tert*-butyl hydroperoxide and 2,2'-diphenyl-1-picrylhydrazyl." *Western Canadian Undergraduate Chemistry Conference 2005* (Victoria, British Columbia, Canada, May 5-7, 2005).

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## OUTREACH TALKS AND ACTIVITIES:

23. **CR Figley.** "An Expedited Permanent Residency Policy for Canadian-Educated PhD Students and PDFs" Centre for Healthcare Innovation, Academic Health Sciences Leadership Program. (Winnipeg, Manitoba, February 15, 2017).
24. **CR Figley.** Guest speaker and panelist on an Alumni Career Panel. (Queen's University Neuroscience Symposium, Kingston, Ontario, Canada, September 09, 2016).
25. **CR Figley.** 3-minute interview about my lab's latest neuroimaging research. CTV Morning Live (CTV, Winnipeg, Manitoba, Canada, June 24, 2016).
26. **CR Figley.** 2-minute live interview about multiple sclerosis research. Health Sciences Centre Home Lottery Funding Drive (The Drive Radio, 94.3FM, Winnipeg, Manitoba, Canada, June 24, 2016).
27. **CR Figley, RA Marrie, JJ Marriott** (Moderator: D Hominuk). "Multiple sclerosis: Questions and answers from Manitoba researchers." University of Manitoba Café Scientifique (McNally Robinson Booksellers, Winnipeg, Manitoba, Canada, March 07, 2016).

28. **CR Figley.** 3-minute live interview about multiple sclerosis research. Health Sciences Centre Bringing Hope to Life Radiothon (CJOB Radio, 680AM, Winnipeg, Manitoba, Canada, January 29, 2016).
29. **CR Figley.** "Advice to new faculty members: Views, experiences and hindsight from someone two years in." University of Manitoba New Faculty Orientation (Winnipeg, Manitoba, Canada, July 09, 2015).
30. **CR Figley.** "Introduction to neuroscience & biomedical engineering: Research and career opportunities." West Kildonan Collegiate (Winnipeg, Manitoba, Canada, June 05, 2015).
31. **CR Figley.** "Advanced MRI methods for imaging brain structure and function." University of Manitoba Biomedical Engineering Seminar Series (Winnipeg, Manitoba, Canada, October 23, 2014).
32. **CR Figley.** "A day in the life of an assistant professor: a neuroscientist and wannabe-biomedical engineer's perspective." University of Manitoba Biomedical Engineering Student Society (Winnipeg, Manitoba, October 16, 2014).
33. **CR Figley.** "Advanced magnetic resonance imaging: Methods and applications." University of Winnipeg, Department of Physics (Winnipeg, Manitoba, April 02, 2014).
34. **CR Figley.** "Basic introduction to magnetic resonance imaging (MRI)." Department of Psychological and Brain Sciences, Johns Hopkins University (Baltimore, Maryland, January 07, 2013).
35. **CR Figley.** "Alternative careers in chemistry: Biomedical engineering, medical physics and neuroscience." Grade 12 Chemistry (Marion Graham Collegiate, Saskatoon, Saskatchewan, Canada, November 19, 2010).
36. **CR Figley.** "A tutorial on fMRI time-series and impulse response functions: hemodynamic and cellular changes following enhanced neuronal activity in the brain and spinal cord." Centre for Neuroscience Studies, Graduate Student Seminar Series (aka "The Friday Fights") (Queen's University, Kingston, Ontario, Canada, March 20, 2009).
37. **CR Figley.** "Understanding k-space and fMRI preprocessing." Absolute Beginner's Guide to fMRI at Queen's (Queen's University, Kingston, Ontario, Canada, June 24, 2008)

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## **ETHICS PROTOCOLS:**

1. **CR Figley,** M Essig, J Kornelsen, L Ryner, and P Barrette. "Pulse sequence development, experimental design and pilot data collection on three recently acquired Siemens and Siemens/IMRIS 3T MRI Systems at the University of Manitoba." University of Manitoba Biomedical Research Ethics Board (BREB) – Approval #B2013:167 (2013-2018).

2. KM Matsuda, **CR Figley**, and M Del Bigio. “Characterizing radiology-pathology correlations: ex vivo MRI and proteomic profiling using multiplex tissue immunoblotting.” University of Manitoba Health Research Ethics Board (HREB) – Approval #H2014:010 (2014-2019).

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## **PATENTS AND INTELLECTUAL PROPERTY:**

1. DA Figley, CB Figley, **CR Figley**, and SA Figley. United States Patent and Trademark Office Provisional Patent (Number: US60/891,113). “Humidity Monitoring and Alarm System for Unattended Detection of Building Moisture.” Foreign Filing License Granted September 2007.
  - *Involvement: development of moisture measurement protocols; acquisition of baseline data; prototype field-testing*
2. **S Younas** and **CR Figley**. United States Patent and Trademark Office Provisional Patent (Number: US62/435,311). “Medial Axis Extraction and Tracking of Complex 3D Objects.” Filed December 2016.
  - *Involvement: generation and development of the initial idea; algorithm conception (divide and conquer approach, path finding method, etc.); reduction to practice*

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## **GOVERNMENT REPORTS:**

1. **CR Figley**, DA Figley, and V Salares. “Preserved wood as a potential source of arsenic and fungi in the foundation walls of homes.” 4-page summary report prepared for the *Canada Mortgage and Housing Corporation (External Research Program Research Highlights – Technical Series, December 2007)*.
  - *Freely available from the Government of Canada Publications website: <http://publications.gc.ca/pub?id=331904&sl=0>*
2. **CR Figley**, DA Figley, and V Salares. “Preserved wood foundation wall cavity arsenic and mold study.” 22-page research report prepared for the *Canada Mortgage and Housing Corporation (External Research Program Research Report, August 2004)*.
  - *Freely available from the Government of Canada Publications website: <http://publications.gc.ca/pub?id=392105&sl=0>*

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## **OTHER COPYRIGHTED WORKS:**

1. UManitoba-JHU Functionally-Defined Human White Matter Atlas  
Version 1.0: July 2015 – present  
Version 2.0: June 2017 – present
  - *A publically-available probabilistic atlas of human white matter tracts/regions underlying various functionally-connected brain networks, including: the dorsal and*



*ventral Default Mode Networks, left and right Executive Control Networks, and anterior and posterior Salience Networks. The atlas comprises group probability maps for each network, as well as each individual tract (i.e., 1-mm isotropic NIFTI images) that are aligned to both the SPM and MRIStrudio ICBM templates. Please see: [www.mitrc.org/projects/uofm\\_jhu\\_atlas/](http://www.mitrc.org/projects/uofm_jhu_atlas/)*

2. Producer and co-host of *Brainwaves* (10 one-hour episodes) February 2009 – December 2009
  - *A monthly radio program on CFRC 101.9 FM (Kingston, Ontario) that covered a broad range of neuroscience topics spanning basic science, technical developments, and clinical applications (included research highlights and interviews with neuroscience faculty members, postdoctoral fellows, medical residents, and graduate students).*

## TEACHING, SUPERVISION AND LEADERSHIP ACTIVITIES:

### TEACHING (Full Courses)

1. ***Biomedical Engineering Seminar*** *June 2014 – present*  
*University of Manitoba (BME7000)* *Course Coordinator*  
*Attendance = Approx. 30*
2. ***Functional Neuroimaging Seminar*** *September 2011 – September 2013*  
*Johns Hopkins University (AS.200.614)* *Co-Instructor (with P. Laurent)*  
*Attendance = Approx. 20*
3. ***Cognitive/Systems Neuroscience Colloquium*** *January 2011 – May 2011*  
*Johns Hopkins University* *Co-Coordinator (with P. Laurent)*  
*Attendance = Approx. 15*
4. ***Absolute Beginner's Guide to fMRI*** *May 2008 – September 2008*  
*Queen's University* *Coordinator & Instructor*  
*Attendance = Approx. 25*
5. ***Introductory Chemistry*** *September 2004 – April 2005*  
*University of Saskatchewan (CHEM110.6)* *Laboratory Instructor*  
*Attendance = Approx. 35*

### GUEST LECTURES

1. ***Fundamentals of Neuroscience II*** *Attendance = Approx. 10*  
*University of Manitoba* *One 1.5-hour lecture (February 2017)*  
*IMED Graduate Course (IMED 7102.3)* *Course Instructor: Dr. Brent Fedirchuk*
2. ***Human Brain Imaging Methods*** *Attendance = Approx. 15*  
*University of Manitoba* *Two 1-hour tutorials (October, 2016)*

- IMED Graduate Course (IMED 7004) Course Instructor: Dr. Ji-Hyun Ko
3. **Human Brain Imaging Methods**  
University of Manitoba  
IMED Graduate Course (IMED 7004) Attendance = Approx. 15  
**Two** 1-hour lectures (September, 2016)  
Course Instructor: Dr. Ji-Hyun Ko
  4. **Functional Anatomy**  
University of Manitoba  
BME Graduate Course (BME 7014.2) Attendance = Approx. 10  
**Two** 1.5-hour lectures (March, 2015)  
Course Instructor: Dr. Bertram Unger
  5. **Fundamentals of Neuroscience II**  
University of Manitoba  
IMED Graduate Course (IMED 7102.3) Attendance = Approx. 10  
**Two** 1-hour lectures (February 2015)  
Course Instructor: Dr. Brent Fedirchuk
  6. **Foundations of Medical Imaging**  
University of Winnipeg  
Department of Physics (PHYS 2503.3) Attendance = Approx. 30  
**One** 1-hour lecture (April 2014)  
Course Instructor: Dr. Melanie  
Martin

**STUDENT AND MEDICAL RESIDENT SUPERVISION (University of Manitoba)**

1. **Salina Khan**  
M.Sc. Candidate  
University of Manitoba  
Dept. of Physiology & Pathophysiology May 2017 – present  
Primary Supervisor
2. **Tiffany Kolesar**  
M.Sc. Candidate  
University of Manitoba  
Dept. of Physiology & Pathophysiology January 2017 – present  
Co-Supervisor  
(Co-Supervised by Dr. Jennifer Kornelsen)  
(awarded \$35,000/year NSERC Scholarship  
September 2017 – September 2020)
3. **Behnoush Mortazavi Moghadam**  
Medical Resident  
University of Manitoba  
Department of Radiology June 2016 – present  
Primary Supervisor
4. **Kevin Solar**  
M.Sc. Candidate  
University of Manitoba  
Dept. of Physiology & Pathophysiology September 2015 – August 2017  
Primary Supervisor  
(Co-Supervised by Dr. Jennifer Kornelsen)  
(awarded \$17,500/year NSERC Scholarship  
May 2016 – May 2017)
5. **Anwar Shatil**  
M.Sc. Candidate  
University of Manitoba  
Biomedical Engineering Graduate  
Program September 2014 – May 2017  
Primary Supervisor  
(awarded \$15,000/year MGS Scholarship  
September 2015 – September 2016)

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|---|--|
| <p>6. <b>Sohail Younas</b><br/> M.Sc. Candidate<br/> University of Manitoba<br/> Biomedical Engineering Graduate<br/> Program</p> | <p>September 2014 – January 2017<br/> Primary Supervisor<br/> (awarded \$15,000/year MGS Scholarship<br/> September 2014 – September 2016)</p> |
| <p>7. <b>Navdeep Bhullar</b><br/> Medical Resident<br/> University of Manitoba<br/> Department of Radiology</p>                   | <p>January 2014 – present<br/> Primary Supervisor<br/> (awarded \$1,500 PARIM Scholarship<br/> September 2014 – September 2015)</p>            |

**GRADUATE STUDENT ADVISORY AND/OR EXAMINATION COMMITTEES**  
*(i.e., In addition to my own students, listed above)*

- |   |   |
|---|---|
| <p>1. <b>Abrar Alhindi</b><br/> Ph.D. Candidate<br/> University of Manitoba<br/> Dept. of Human Anatomy &amp; Cell Sciences<br/> Supervisor: Dr. Ji-Hyun Ko</p>           | <p>May 2017 – present<br/> External Committee Member</p>                              |
| <p>2. <b>Tiffany Carther-Krone</b><br/> Ph.D. Candidate<br/> University of Manitoba<br/> Dept. of Psychology<br/> Supervisor: Dr. Jonathan Marotta</p>                    | <p>January 2016 – present<br/> External Committee Member</p>                          |
| <p>3. <b>Maram Aljuaid</b><br/> Ph.D. Candidate<br/> University of Manitoba<br/> Dept. of Human Anatomy &amp; Cell Sciences<br/> Supervisor: Dr. Ji-Hyun Ko</p>           | <p>January 2016 – present<br/> External Committee Member<br/> and Thesis Examiner</p> |
| <p>4. <b>Tiffany Kolesar</b><br/> M.Sc. Candidate<br/> University of Manitoba<br/> Dept. of Physiology &amp; Pathophysiology<br/> Supervisor: Dr. Jennifer Kornelsen</p>  | <p>January 2016 – December 2016<br/> Internal Committee Member</p>                    |
| <p>5. <b>Elena Bilevicius</b><br/> M.Sc. Candidate<br/> University of Manitoba<br/> Dept. of Physiology &amp; Pathophysiology<br/> Supervisor: Dr. Jennifer Kornelsen</p> | <p>September 2015 – May 2017<br/> Internal Committee Member</p>                       |
| <p>6. <b>Morgan Mercredi</b><br/> Ph.D. Candidate<br/> University of Manitoba<br/> Medical Physics Graduate Program</p>   | <p>May 2015 – present<br/> External Committee Member</p>                              |

*Supervisor: Dr. Melanie Martin*

7. **Biniyam Mezgebo**  
*Ph.D. Candidate  
University of Manitoba  
Dept. of Electrical & Computer  
Engineering  
Supervisor: Dr. Sherif Sherif*  
*September 2015 - present  
External Committee Member  
and Thesis Examiner*
8. **Biniyam Mezgebo**  
*M.Sc. Candidate  
University of Manitoba  
Dept. of Electrical & Computer  
Engineering  
Supervisor: Dr. Sherif Sherif*  
*July 2015 – September 2015  
External Committee Member  
and Thesis Examiner*
9. **Younes Rakhshani**  
*M.Sc. Candidate  
University of Manitoba  
Biomedical Engineering Graduate  
Program  
Supervisor: Dr. Zahra Moussavi*  
*April 2014 – January 2015  
External Committee Member  
and Thesis Examiner*

#### **STAFF SUPERVISION (University of Manitoba)**

1. **Stella Choi**  
*Research Associate  
Department of Radiology  
University of Manitoba*  
*November 2016 – present  
Primary Supervisor*
2. **Nasir Uddin**  
*Research Associate & Brain Canada  
Neuroimaging Platform Coordinator  
Department of Radiology  
University of Manitoba*  
*January 2016 – present  
Primary Supervisor*

#### **DEPARTMENT AND UNIVERSITY SERVICE**

1. *Society for Neuroscience (SfN) 2016  
Graduate School Fair Committee  
Manitoba Neuroscience Network (MNN)*  
*July 2016 – November 2016  
Chair*
2. *Research Coordinator Hiring Committee  
Department of Radiology (University of  
Manitoba)*  
*September 2016 – October 2016  
Chair*
3. *Manitoba Neuroscience Network (MNN)  
Annual Meeting*  
*May 2016 – June 2016  
Abstract Reviewer and Poster Judge*

*University of Manitoba and Winnipeg  
Health Sciences Centre*

4. *Staff Scientist and Brain Canada Platform  
Grant Coordinator Hiring Committee  
Department of Radiology (University of  
Manitoba) and Neuroscience Research  
Program (HSC-Winnipeg)* *July 2015 – January 2016  
Chair*
  
5. *Branding and Website Committee  
Neuroscience Research Program  
Health Sciences Centre – Winnipeg  
Kleysen Institute for Advanced Medicine* *December 2014 – December 2015  
Member*
  
6. *Executive Oversight Committee  
Biomedical Engineering Graduate  
Program  
University of Manitoba* *September 2014 – present  
Member*
  
7. *Liaison and Outreach Sub-Committee  
Biomedical Engineering Graduate  
Program  
University of Manitoba* *September 2014 – present  
Chair*
  
8. *Research Oversight Committee  
Division of Diagnostic Imaging  
Health Sciences Centre – Winnipeg* *June 2014 – present  
Assistant Research Director*
  
9. *Resident Research Day Committee  
Department of Radiology  
University of Manitoba* *May 2014 – present  
Judge & Assistant Research Director*
  
10. *Faculty Assessment and Promotions  
Committee  
Department of Anesthesiology  
Queen's University* *September 2008 – December 2008  
Graduate Student Representative*
  
11. *Faculty Recruitment and Hiring  
Committee  
Centre for Neuroscience Studies  
Queen's University* *September 2006 – September 2007  
Graduate Student Representative*
  
12. *Graduate Student Seminar Series  
Centre for Neuroscience Studies  
Queen's University* *September 2006 – September 2007  
Organizing Committee Member*
  
13. *Chemistry Student Society (CS<sup>2</sup>)  
Department of Chemistry  
University of Saskatchewan* *May 2004 – May 2005  
Vice-President*

## CONFERENCE ORGANIZATION AND PLANNING COMMITTEES

1. *40th Canadian Medical and Biological Engineering Conference (CMBEC40) Organizing Committee*  
*Canadian Medical and Biological Engineering Society (CMBES)* July 2016 – June 2017  
Conference Co-Chair
2. *Biomedical Engineering Conference (BioMedCon) Organizing Committee*  
*University of Manitoba* July 2015 – December 2015  
Conference Co-Chair

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## **PROFESSIONAL DEVELOPMENT AND TRAINING:**

1. *Academic Health Sciences Leadership (AHSL) Program; George and Fay Yee Centre for Healthcare Innovation, University of Manitoba and Winnipeg Regional Health Authority* 28 September 2016 – 15 February 2017
2. *2-Day Resting State and Brain Connectivity Workshop; Medical University of Vienna* 19/20 September 2016
3. *Academic Career Advancement in the Faculty of Health Sciences Workshop; University of Manitoba* 26 January 2016
4. *Compute Canada Data Visualization (ParaView) Workshop; University of Manitoba* 01 December 2015
5. *Faculty Teaching Improvement Programs (TIPs) 2-Day Intensive Workshop; University of Manitoba* 19/20 November 2015
6. *Training: Intro to Surgery & Post-Operative Care Wet Lab University of Manitoba Animal User Training Program* 23 April 2014
7. *Training: Rodent Anesthesia and Analgesia Wet Lab University of Manitoba Animal User Training Program* 16 April 2014
8. *Training: Introductory Rodent Wet Lab University of Manitoba Animal User Training Program* 10 April 2014
9. *Training: Research Animal User Training Course University of Manitoba Animal User Training Program* 24 March 2014
10. *Academic Promotion & Career Advancement Workshop University of Manitoba Faculty of Medicine* 12 February 2014
11. *Training: Philips MRI Scanner Operator (research only)* February 2012 – March 2012

*FM Kirby Center for Functional Brain Imaging*

12. *Faculty and Leadership Skills in Academia* 23 January – 26 January 2012  
*Johns Hopkins University (AS.360.690)*
13. *SPM8 Functional Connectivity Analysis Workshop* 12 December – 16 December 2012  
*Johns Hopkins Medical Institutes*
14. *AFNI Data Analysis Bootcamp* 21 February – 25 February 2011  
*National Institutes of Health*
15. *MRI and DTI Studio Workshop* 7 September – 28 September 2010  
*Johns Hopkins University*
16. *International School on Magnetic Resonance* 25 May – 30 May 2009  
*and Brain Function*  
*Erice, Sicily*

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## **PEER REVIEW ACTIVITIES**

### **GRANT REVIEW PANELS/COMMITTEES**

1. ***Multiple Sclerosis Society of Canada (MSSC)*** October 2016 – February 2020  
*Scholarships & Awards Committee*  
*Member*  
**Country:** *Canada*  
**Program:** *Research Grants and Awards*  
*(Scholarships and Awards)*
2. ***Ontario Research Fund (ORF)*** January 2017 – April 2017  
*Grant Review Committee Member*  
**Country:** *Canada*  
**Program:** *Large Infrastructure Fund*
3. ***Heath Sciences Centre Foundation (HSCF)*** February 2016 – June 2016  
*Grant Review Committee Member*  
**Country:** *Canada*  
**Program:** *General Operating Grants*

### **AD HOC GRANT REVIEWS**

1. ***ANR (L'Agence Nationale de la Recherche)*** March 2013  
*(French National Research Agency)*  
*External Grant Reviewer*  
**Country:** *France*  
**Program:** *BLANC(Evaluation Panel SVSE5)*  
**Research Theme:** *Physics, Chemistry and*  
*Biotechnological Innovation*

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| <p>2. <b>MITACS (Mathematics of Information Technology and Complex Systems)</b></p> <p><i>Country:</i> Canada<br/> <i>Program:</i> MITACS Accelerate Awards<br/> <i>Research Theme:</i> Industry-Partnered Fellowships</p> | <p>May 2015<br/> External Grant Reviewer</p>               |
| <p>3. <b>HFSP (Human Frontier Science Program)</b></p> <p><i>Region:</i> Global<br/> <i>Program:</i> Career Development Awards (CDA)<br/> <i>Research Theme:</i> Life Sciences</p>   | <p>November/December 2015<br/> External Grant Reviewer</p> |
| <p>4. <b>FWF (Austrian Science Fund)</b></p> <p><i>Country:</i> Austria<br/> <i>Program:</i> Erwin Schrodinger Fellowships (ESF)<br/> <i>Research Theme:</i> Interdisciplinary Sciences</p>                                | <p>January/February 2016<br/> External Grant Reviewer</p>  |

**AD HOC JOURNAL REVIEWS**

- |   |                                    |
|---|------------------------------------|
| <p>1. PLoS ONE<br/> (2011 Impact Factor = 4.09)</p>   | <p>1 Review<br/> (2012)</p>        |
| <p>2. BMC Neuroscience<br/> (2012 Impact Factor = 3.00)</p>                                   | <p>1 Review<br/> (2013)</p>        |
| <p>3. Schizophrenia Bulletin<br/> (2012 Impact Factor = 8.49)</p>                             | <p>1 Review<br/> (2013)</p>        |
| <p>4. Magnetic Resonance Imaging<br/> (2013 Impact Factor = 2.02)</p>                         | <p>1 Review<br/> (2014)</p>        |
| <p>5. Frontiers in Human Neuroscience<br/> (2013 Impact Factor = 2.90)</p>                    | <p>2 Reviews<br/> (2014, 2016)</p> |
| <p>6. Obesity Journal<br/> (2015 Impact Factor = 3.61)</p>                                    | <p>1 Review<br/> (2016)</p>        |
| <p>7. Journal of Magnetic Resonance Imaging<br/> (2015 Impact Factor = 3.25)</p>              | <p>1 Review<br/> (2016)</p>        |
| <p>8. Human Brain Mapping<br/> (2015 Impact Factor = 4.96)</p>                                | <p>1 Review<br/> (2017)</p>        |
| <p>9. Medical and Biological Engineering &amp; Computing<br/> (2016 Impact Factor = 1.92)</p> | <p>1 Review<br/> (2017)</p>        |



## AD HOC CONFERENCE ABSTRACT/PROCEEDING REVIEWS

1. *International Society for Magnetic Resonance in Medicine (ISMRM)* 2009 - 2010
2. *Organization for Human Brain Mapping (OHBM)* 2011 - present
3. *University of Manitoba Biomedical Engineering Conference (BioMedCon)* 2015 - present
4. *Manitoba Neuroscience Network (MNN) Annual Meeting* 2016 - present

## FACULTY of 1000 (post-publication review and commentary)

1. *NeuroImage* 2012 - present
2. *Neuron* 2012 - present

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## **PROFESSIONAL AFFILIATIONS:**

1. *Faculty of 1000 (F1000)* June 2012 – Present  
*Associate Faculty Member*
2. *American Society for Neurochemistry (ASN)* February 2012 - Present  
*Postdoc/Faculty Member*
3. *Society for Neuroscience (SfN)* September 2011 – Present  
*Postdoc/Faculty Member*
4. *Organization for Human Brain Mapping (OHBM)* January 2008 – Present  
*Student/Postdoc/Faculty Member*
5. *International Society for Magnetic Resonance in Medicine (ISMRM)* September 2005 - Present  
*Student/Postdoc/Faculty Member*

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## **REFERENCES:**

*References can be made available upon request. Please email [chase.figley@umanitoba.ca](mailto:chase.figley@umanitoba.ca) if you are interested.*