CURRICULUM VITAE

J. JEAN CHEN, PH.D.

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EDUCATION

7/2009–8/2011	**Postdoctorate, Massachusetts General Hospital, Harvard Medical School** Mentor: David Salat
9/2004–2/2009	**Ph.D. Biomedical Engineering, McGill University** Advisor: Bruce Pike
9/2002–8/2004	**M.Sc. Electrical Engineering, University of Calgary** Advisor: Richard Frayne, Michael Smith
9/1996–5/2001	**B.Sc. Electrical Engineering (Minor, Computer Engineering), U. of Calgary** Exchange experience: McGill University, 2000 – 2001

EMPLOYMENT HISTORY

10/2011– pres.	***Assistant Professor,*** Dept. of Medical Biophysics, University of Toronto
9/2011– pres.	***Scientist,*** Rotman Research Institute, Baycrest, Toronto
2/2009-7/2009	***Research Associate,*** Montreal Neurological Institute
6/2001-6/2002	***Signal Processing Engineer*****,** Inzigo Research Inc., Montreal

RESEARCH FUNDING HISTORY

2016-2021	***Principal Investigator*****:** CIHR Foundation Grant *Mapping the resting brain: A new frontier for studying neurovascular physiology and age-related brain diseases* $ 1,008,631 CAD
2016-2021	***Co-investigator:*** CIHR Project Grant (PI: Brian Levine) *Individual differences in autobiographical memory: cognitive, behavioural and neural correlates and their relationship to aging* $ 760,680 CAD
2014-2016	***Co-investigator:*** CIHR Catalyst Grant (PI: Bradley MacIntosh) *Identifying new physiological biomarkers of Alzheimer's disease from functional and perfusion MRI* $ 66,000 CAD
2013-2018	***Principal Investigator*****:** CIHR Operating Grant *Physiological Basis of Resting-State fMRI* $ 439,489 CAD
2012-2017	***Principal Investigator*****:** NSERC Discovery Grant *Investigating the neuronal and vascular contributions to spontaneous fMRI signal fluctuations underlying functional connectivity* $ 157,500 CAD
2012-2014	***Co-investigator:*** Centre for Stroke Recovery Hakim Research Award (PI: Jed Meltzer) Title: *Characterizing functional lesions in stroke using MEG and fMRI* $ 100,000 CAD
2012-2013	***Principal Investigator*****:** Centre for Stroke Recovery Stimulus Fund Title: *Novel functional imaging methods for non-invasive monitoring of stroke recovery* $ 34,500 CAD

2009-2012 ***Principal Investigator*:** CIHR Postdoctoral Fellowship
Title: *Magnetic resonance imaging of cerebrovascular contributions to aging and Alzheimer's Disease*
$ 135,000 CAD

ACTIVITIES

Summary

Granting programs reviewed for	6		
Editorial boards	2		
Chair/moderation	3		
Teaching duties	2		
Journals reviewing for	10	NeuroImage	15
		J Cereb Blood Flow Metab	18
		Magn Reson Med	5
		Hum Brain Mapp	5

Grant Review

2015-present CIHR Doctoral Award Committee
2014-present NSERC Discovery Grant
2014-present CIHR College of Reviewers
2014 CIHR Open-Operating Grant, Medical Imaging and Physics Committee
2014-present Medical Research Council, United Kingdom
2014-present Alzheimer's Association

Editorial Board

2015-present Frontiers in Brain Imaging Methods
2011-present Journal of Cerebral Blood Flow and Metabolism

Chair/Invited Moderator

2015 Toronto – Tel Aviv Joint Imaging Conference, Toronto
2015 ISMRM Annual Meeting, Brain Physiology Session, Toronto
2011 Neuroimaging in Aging Workshop, OHBM Annual Scientific Meeting, Quebec

Teaching

2013-present Baycrest MRI Users' Meetings
2013-present Baycrest Research Training Centre

Consulting

2011-present MRI Physicist*,* Imaging Oversight Committee, Baycrest

Ad-hoc Review

2009-present Magnetic Resonance in Medicine
2009-present Journal of Cerebral Blood Flow and Metabolism
2009-present NeuroImage
2008-present Journal of Magnetic Resonance Imaging
2009-present OHBM Annual Scientific Meeting
2010-present Journal of Gerontology
2011-present PLoS ONE
2013-present Brain Connectivity
2012-present BMC Neuroscience
2011-present Journal of Pharmacology and Experimental Therapeutics

2010-present	ISMRM Annual Scientific Meeting

Membership

2003-present	International Society for Magnetic Resonance in Medicine (ISMRM)
2006-present	Organization for Human Brain Mapping (OHBM)
2000-present	Institute of Electrical and Electronics Engineers (IEEE)

RECOGNITIONS

2015	Nominee for Canada Research Chair (Tier 2)
2008-2009	Jean Timmins Costello Fellowship ($10,000 CAD)
2008	Principal's Graduate Award ($3,000 CAD)
2007	OHBM Travel Award ($1,000 CAD)
2005-2008	NSERC Canada Graduate Scholarship – Doctoral (CGS-D) ($105,000 CAD)
2005-2006	McGill University Recruitment Fellowship ($5,000 CAD)
2005	Governor General's Gold Medal (No monetary value)
2004	The Alberta Informatics Circle of Research Excellence Award ($12,000 CAD)
2004-2005	NSERC Canada Graduate Scholarship – Master's (CGS-M) ($21,000 CAD)
2003/2004/2007	ISMRM Travel Award ($3,000 CAD)
1999	NSERC Undergraduate Student Research Award ($4,500 CAD)
1997-1998	Tony Neidermeyer Memorial Bursaries ($1,500 CAD)
1996-1997	Vernon V. Van Sant, Jr. Memorial Matriculation Bursaries ($1,500 CAD)
1996-1997	Alexander Rutherford Scholarship ($1,500 CAD)

RESEARCH CONTRIBUTIONS

Summary

Research Articles	31	As first author	13
		As senior author	10
		As co-author	8
Total Citations (self citations excluded)	562		
***h*-index**	14		
Invited Lectures	9		
Invited Presentations	10		
Conference Proceedings	61		
Theses	2		
Patents	1		

Dissemination venues

The most widely read and respected journal on neuroimaging methods and brain physiology is **NeuroImage (impact factor = 6.4),** followed by the **Journal of Cerebral Blood Flow and Metabolism (impact factor = 5.4) and Human Brain Mapping (impact factor = 6.0).** The most recognized journal on MRI physics is **Magnetic Resonance in Medicine (impact factor = 3.6)**, followed by the **Journal of Magnetic Resonance Imaging (impact factor = 3.2)**, which are both official journals of the International Society for Magnetic Resonance in Medicine. The top journal specific the brain connectivity field is the newly established **Brain Connectivity (2011-pres., impact factor unavailable)**, and one of the top-ranking journals (ranked 3 out of 49) in Geriatrics and Gerontology is **Neurobiology of Aging (impact factor = 5.2).**

The premier scientific conferences in the nominee's field are the annual meetings of the International Society for Magnetic Resonance in Medicine **(ISMRM)** and the meetings of the Organization for Human Brain Mapping **(OHBM)**. These two conferences enjoy high attendance by the top researchers in the field, and have been the arena for the most active research debates.

Citation conventions

The research supervisor (**senior author**) is expected to be named **last** on the list. Other co-authors are cited in the order of their contribution to the manuscript.

Peer-reviewed Journal Articles

(Trainee authors are in bold, and PIs are underlined)

Invited Review Papers

1. Chen J. J., Jann K. and Wang D. J. *Characterizing resting-state brain function using arterial-spin labeling. Brain Connect 2015.* Brain Connect 2015; 5: 527-542. PMID: 26106930.
2. Mark, C. I., Mazerolle, E. and Chen J. J. *The metabolic and vascular origins of the BOLD effect: Implications for imaging pathology and resting-state brain function.* J Magn Reson Imaging 2015. PMID: 25727523.

Research Papers

3. **Lam, T. K.,** Dawson, D. R., Honjo, K., Ross, B., Binns, M. A., Stuss, D. T., Black, S. E., Chen J. J., Levine, B. T., Fujioka, T. and Chen, J. L. *Thinking about moving: Greater compling between motor and frontoparietal networks correlates with better motor activity in chronic stroke.* Under review.

4. **Chu, P. P. W., Golestani, A. M., Kwinta J. B.** and Chen J. J. *Physiological modulators of resting-state fMRI functional connectivity.* Under review.

5. **Faraji-Dana Z.,** Tam F., Graham S. J. and Chen J. J. *Simultaneous multislice resting-state fMRI at 3 Tesla: Slice-acceleration related biases in physiological-noise effects.* Under review.
6. **Faraji-Dana Z.,** Tam F., Chen J. J. and Graham S. J. *Correcting for dynamic geometric distortions in functional MRI: The role of phase labeling for additional coordinate encoding and dynamic off-resonance correction in k-space.* Under review.
7. **Faraji-Dana Z.,** Tam F., Chen J. J. and Graham S. J. *Interactions between head motion and coil sensitivity in accelerated fMRI.* J Neurosci Methods 2016: doi: 10.1016/j.neurmeth.2016.06.005. PMID: 27288867.
8. **Faraji-Dana Z.,** Tam F., Chen J. J. and Graham S. J. Suppressing respiration effects when geometric distortion is corrected dynamically by phase labeling for additional coordinate encoding (PLACE) during functional MRI. PLoS ONE 2016; 11: e0156750. PMID: 27258194.
9. **Golestani, A. M., Wei L. L.**, **Kwinta J. B.** and Chen J. J. *Cerebrovascular reactivity quantification using resting-state BOLD fMRI: Validation in healthy adults.* NeuroImage. Epub ahead of print, May 2016. doi: 10.1016/j.neuroimage.2016.05.025. PMID: 27177763.

10. **Kielar, A.**, Deschamps, T., Chu, R. K. O., Jokel, R., Khatamian, Y. B., Chen, J. J. and Meltzer, J. A. *Identifying dysfunctional cortex: distinguishing the effects of stroke and healthy aging with resting-state MEG and fMRI.* Front Aging Neurosci 2016; 8:40. PMID: 26973515.

11. Khatamian Y. B., **Ragot D. M, Golestani A. M.** and Chen J. J. *Spin-echo resting-state functional connectivity in high-susceptibility areas: Sensitivity, specificity and the role of physiological noise.* Brain Connectivity 2016. Epub ahead of print, Feb. 6, 2016, doi:10.1089/brain.2015.0365. PMID: 26842962.

12. **Golestani A. M., Kwinta J. B.**, Strother S. C., Khatamian Y. B. and Chen J. J. *The association between cerebrovascular reactivity on resting-state fMRI functional connectivity: The influence of basal carbon dioxide.* NeuroImage 2016; 132: 301-313. PMID: 26908321.
13. **Makedonov I.,** Chen J. J., Masellis M. and MacIntosh B. J. *White-matter physiological fluctuations are increased in Alzheimer's disease on resting-state magnetic resonance imaging.* Neurobiol Aging 2016; 37: 12-18. PMID: 26476600.
14. **Halani, S., Kwinta, J. B**., **Golestani A. M**. and Chen J. J. *Comparing cerebrovascular reactivity measured using BOLD and cerebral blood flow imaging: The effect of vascular tension on vasodilatory and vasoconstrictive reactivity.* NeuroImage 2015; 110: 110-123. PMID: 25655446.
15. **Golestani A. M.**, C. Chang, **Kwinta J. B**., Khatamian Y. B. and Chen J. J. *Mapping the CO_2 response function in the resting-state BOLD fMRI signal: Spatial variability, test-retest reproducibility and the effect*

of sampling rate. NeuroImage 2014; 104: 266-277. PMID: 25462695.

16. **Tak S.**, Polimeni, J. R., Wang, D. J. J. and Chen J. J. *Associations of resting-state fMRI functional connectivity with flow-BOLD coupling and regional vasculature*. Brain Connect 2014; 5: 137-146. PMID: 25384681.
17. **Tak S**., Wang, D. J. J., Polimeni, J. R., Yan, L. and Chen J. J. *Dynamic and static contributions of the cerebrovasculature to the resting-state BOLD signal.* NeuroImage 2014; 84: 672:80. PMID: 24099842. Citations = 9.
18. **Coutu J. P**., Chen J. J., Rosas H. D. and Salat D. H. *Non-Gaussian water diffusion in aging white matter*. Neurobiol Aging, 2014; 35: 1412-21. PMID: 24378085. Citations = 2.
19. **Chen J. J.**, Rosas H. D. and Salat D. H. *The Relationship between cortical blood flow and sub-cortical white-matter health across the adult age span.* PLoS ONE 2013; 8(2): e56733. PMID: 23437228 Citations = 9.
20. **Chen J. J.**, Salat D. H. and Rosas H. D. *Complex relationships between cerebral blood flow reductions and tissue atrophy in early Huntington's disease.* NeuroImage 2012; 59:1043-51. PMID: 21945790. Citations = 8.
21. **Chen J. J.**, Rosas H. D. and Salat D. H. *Age-associated reductions in cerebral blood flow are independent from regional atrophy.* NeuroImage 2011;55:468-78. PMID: 21167947.Citations=45.
22. Salat D. H., Chen J. J., A. J. van der Kouwe, D. N. Greve, B Fischl and Rosas H. D.. *Hippocampal degeneration is associated with temporal and limbic gray matter/white matter tissue contrast in Alzheimer's disease.* NeuroImage 2011; 54: 1795-902. PMID: 20965261. Citations = 18.
23. **Chen J. J.** and Pike G. B. *MRI measurement of the BOLD-specific flow-volume relationship during hypercapnia and hypocapnia in humans.* NeuroImage 2010; 53:383-91. PMID: 20624474. Citations = 39.
24. **Chen J. J.** and Pike G. B. *Global cerebral oxidative metabolism during hypercapnia and hypocapnia in humans: implications for BOLD fMRI.* J Cereb Blood Flow Metab, 2010; 30: 1094-9. PMID: 20372169. Citations = 50.
25. **Chen J. J.** and Pike G. B. *BOLD-specific changes in cerebral blood volume and blood flow during neuronal activation.* NMR Biomed 2010; 22:1054-62. PMID: 19598180. Citations = 51.
26. **Chen J. J.** and Pike G. B. *Origins of the BOLD post-stimulus undershoot.* NeuroImage 2009; 46:559-68. PMID: 19303450. Citations = 38.
27. **Chen J. J.** and Pike G. B. *Magnetic resonance T_2 relaxometry of whole human blood at 3 Tesla.* Magn Reson Med 2009; 61:249-54. PMID: 19165880. Citations = 18.
28. **Chen J. J.**, M Wieckowska, E Meyer and Pike G. B. *Cerebral blood flow measurement using PET and fMRI: a cross-validation study.* Int J Biomed Imaging 2008; 2008: 516359. PMID: 18825270. Citations = 24.
29. **Chen J. J.**, Smith M. R., Frayne R. *The impact of partial-volume effects in DSC MR perfusion quantification.* J Magn Reson Imaging, 2005; 22: 390-9. PMID: 16104009. Citations = 28.
30. **Chen J. J.**, Frayne R., Smith M. R.. *Reassessing the clinical efficacy of two MR quantitative DSC PWI CBF algorithms following cross-calibration with PET images.* Phys Med Biol 2005; 50:1251-63. PMID: 15798320. Citations = 16.
31. **Chen J. J.**, Smith M. R., Frayne R. *The advantages of frequency domain modeling in DSC MR CBF quantification.* Magn Reson Med 2005; 53: 700-7. PMID: 15723395. Citations = 15.

Invited Lectures

05/2016	*Integration of Functional and Structural MRI in Studying Neurodegenerative Diseases,* Workshop on Partial-volume Effect Correction, OHBM 2016, Geneva
11/2015	*Vascular Modulators of Resting-state Functional MRI*, McConnell Brain Imaging Centre, Montreal Neurological Institute

09/2015 *Novel MRI Methods and Multi-modal Integration in Studying Aging.* Research Imaging Rounds, Centre for Addiction and Mental Health (CAMH), Toronto
11/2014 *MRI Methods for Neuroscience*, 3rd University of Toronto Undergraduate Neuroscience Conference, Toronto
04/2014 *Physiology of Resting-state fMRI*, Rotman Research Rounds, Baycrest, Toronto
03/2013 *MRI of Brain Structure and Function in Aging*, 23rd Annual Rotman Research Conference, Toronto
10/2012 *Multimodal Neuroimaging of Aging*, Campus Alberta Neuroscience Symposium, Edmonton, Alberta
03/2012 *MRI of Cerebral Hemodynamics***,** Mouse Imaging Centre, University of Toronto
10/2012 *Resting-state Functional MRI in Aging,* Toronto Western Hospital

Invited Presentations

1. **Tak S.** and Chen J. J. *Contribution of neurovascular factors to resting-state fMRI functional connectivity.* OHBM 2014, Hamburg.
2. **Chen J. J.**, Rosas H. D. and Salat D. H. *Association between cerebral blood flow and age-related changes in white matter microstructure.* ISMRM 2011, Montreal; 775.
3. **Chen J. J.**, Rosas H. D. and Salat D. H. *Age effects in the amplitude and frequency of resting-state BOLD fluctuations*. ISMRM 2011, Montreal; 774.
4. **Chen J. J.**, Salat D. H. and Rosas H. D. *Quantitative cerebral blood flow changes in Huntington's disease measured using pulsed arterial spin labeling*. ISMRM 2010, Stockholm.
5. **Chen J. J.**, Rosas H. D. and Salat D. H. *Quantitative mapping of the age-dependence of cerebral blood flow using pulsed arterial spin labeling*. ISMRM 2010, Stockholm.
6. Cohalan C., **Chen J. J.** and Pike G. B. *Cerebral blood volume during human neuronal activation measured using VASO and VERVE*. ISMRM 2009, Hawaii.
7. **Chen J. J.** and Pike G. B. *Does global cerebral oxygen metabolism change during hypocapnia and hypercapnia in awake humans?* ISMRM 2009, Hawaii.
8. **Chen J. J.** and **Pike G. B**. *Measuring hemodynamic contributions to the BOLD post-stimulus undershoot.* OHBM 2008, Melbourne.
9. **Chen J. J.** and Pike G. B. *Origins of the BOLD post-stimulus undershoot.* ISMRM 2008, Toronto.
10. **Chen J. J.**, Advani K., Pike G. B. *Analysis of the biomechanical origin of the BOLD post-stimulus undershoot.* HBM 2007, Chicago.

Peer-reviewed Conference Proceedings

1. **Golestani A. M.**, **Kwinta J. B.** and Chen J. J. *The association between cerebrovascular reactivity and rs-fMRI connectivity*. ISMRM 2016, Singapore; p. 768.
2. **Ragot D. M.** and Chen J. J. *Echo-time optimization in spin-echo EPI fMRI using hypercapnic manipulations at 3 T.* ISMRM 2016, Toronto; p. 3725.
3. **Faraji-Dana, Z**., Golestani A. M., Khatamian Y. B., Graham S. and Chen J. J. *Comparision of physiological noise in multiband-EPI and regular-EPI fMRI at 3 Tesla.* ISMRM 2016, Singapore; p. 3717.
4. **Faraji-Dana, Z**., Golestani A. M., Khatamian Y. B., Graham S. and Chen J. J. *Slice acceleration related biases in multiband-EPI resting-state functional connectivity.* ISMRM 2016, Singapore; p. 1748.
5. **Faraji-Dana, Z**., Tam F., Chen J. J. and Graham S. *Importance of physiological noise correction for PLACE distortion correction in EPI-based fMRI.* OHBM 2015, Honolulu; p. 3732.
6. **Golestani A. M.** and Chen J. J. *Low-frequency physiological effects on the specificity of resting-state functional connectivity measurements.* OHBM 2015, Honolulu; p. 3733.
7. Khatamian Y. B. and Chen J. J. *Significance and correction of respiratory off-resonance effects in*

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fMRI – A phantom study. OHBM 2015, Honolulu; p. 1651.

8. Khatamian Y. B. and Chen J. J. *Fat suppression artifact in spin-echo BOLD EPI at 3 Tesla*. ISMRM 2015, Toronto; p. 3775.
9. **Halani S, Kwinta J. B., Golestani A. M.** and Chen J. J. *Cerebrovascular reactivity measurement using BOLD and arterial-spin labeling MRI: The effect of vascular tension.* ISMRM 2015, Toronto; p. 3703.
10. **Ragot D. M.,** Khatamian Y. B. and Chen J. J*. White-matter functional connectivity during trans-collosal tasks.* ISMRM 2015, Toronto; p. 1339.
11. **Chu P. P. W., Kwinta J. B., Golestani A. M**. and Chen J. J. *Physiological modulators of resting-state fMRI functional connectivity.* ISMRM 2015, Toronto; p. 2128.
12. **Golestani A. M.** and Chen J. J. *Physiological noise correction improves reproducibility of functional connectivity measurements.* Biennial Conference on Resting-state/Brain Connectivity, 2014, Cambridge.
13. **Kielar A.** Chu R. K., Panamsky L., Khatamian Y. B., Chen J. J. and Meltzer J. A. *Stroke induced reorganization of the neural networks for sentence comprehension, and relationship to perilesional dysfunction revealed by MEG and ASL.* Academy of Aphasia Annual Meeting, 2014; doi:10.3380/conf.fpsyg.2014.64.00015.
14. **Tak S.** and Chen J. J. *Contribution of neurovascular factors to resting-state fMRI functional connectivity.* OHBM 2014, Hamburg; p. 4221.
15. **Kwinta, J. B**. and Chen J. J. *The influence of end-tidal CO_2 on cerebrovascular reactivity and functional connectivity.* OHBM 2014, Hamburg; p. 1759.
16. **Golestani A. M**. and Chen J. J. *Regional variability in delay of brain response to resting state end-tidal CO_2 fluctuations. OHBM* 2014, Hamburg; p. 4214.
17. **Golestani A. M**. and Chen J. J. *Reliability of resting-state connectivity using simultaneous multislice fMRI with ultra-short TR. OHBM* 2014, Hamburg; p. 2088.
18. **Golestani A. M.** and Chen J. J. *The end-tidal CO_2 response function in resting-state BOLD fMRI. ISMRM* 2014, Milan; p. 4206.
19. **Golestani A. M.** and Chen J. J. *Estimating the physiological response function in resting-state BOLD: the effect of acquisition speed. ISMRM* 2014, Milan; p. 3069.
20. **Golestani A. M**. and Chen J. J. *Inter-regional differences in brain response delay to end-tidal CO_2 estimated from resting-state fMRI. ISMRM* 2014, Milan; p. 4199.
21. Khatamian Y. B. and Chen J. J. *Respiratory volume over time effects in resting-state gradient-echo and spin-echo EPI BOLD. ISMRM* 2014, Milan; p.2998.
22. **Tak S**. and Chen J. J. *Associations of resting-state fMRI functional connectivity with flow-BOLD coupling and regional vasculature. ISMRM* 2014, Milan; p. 4207.
23. **R. Wright,** D. Dawson, B. Ross, S. E. Black, D. T. Stuss, Chen J. J., J. Chen and T. Fujioka. *Effective design of music supported rehabilitation procedures for stroke survivors. Rotman Conference*, 2013.
24. **Tak S**. and Chen J. J. *Understanding the vascular origins of resting-state BOLD fluctuations using MR angiography. OHBM* 2013, Seattle; p. 2044.
25. Khatamian Y. B. and Chen J. J. *Respiratory effects in resting-state fMRI: a comparison between respiration measurement techniques. OHBM* 2013, Seattle; p. 3478.
26. **Coutu J. P**., Triggs T. D., Chen J. J., Rosas H. D. and Salat D. H. *Is default-network activity selectively linked to its white matter tracts' integrity in aging?* OHBM 2013, Seattle; p. 3690.
27. **Liu T. X., Tak S.** and Chen J. J. *Robustness of resting-state functional connectivity measurement*

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using ASL-based BOLD. ISMRM 2013, Salt Lake City; p. 2227.

28. Khatamian Y. B. and Chen J. J. *Measurement of resting-state functional connectivity using spin-echo BOLD.* ISMRM 2013, Salt Lake City; p. 2234.
29. **Bhatt O.,** Meltzer J. A., Ross B. and Chen J. J. *Stability of resting-state brain activity fluctuations across time: evidence from fMRI and MEG.* ISMRM 2013, Salt Lake City; p. 2240.
30. **Tak S.,** Wang, D. J. J., L Yan and Chen J. J. *Spatial variability in the contribution of cerebral blood flow fluctuations to the resting-state BOLD signal.* ISMRM 2013, Salt Lake City; p. 3346.
31. **Tak S**., Wang, D. J. J., L Yan and Chen J. J. *Resting-state functional connectivity mapping using cerebral blood flow: comparison with simultaneous-acquired BOLD in high-susceptibility regions.* ISMRM 2013, Salt Lake City; p. 2233.
32. **Tak S**. and Chen J. J. *Investigation of vascular effects on resting-state BOLD fluctuations with simultaneous CBF and BOLD.* OHBM 2012, Beijing; p. 735.
33. **Chen J. J.**, Rosas H. D. and Salat D. H. *Associations between cortical tissue microstructure and cerebral blood flow in aging.* OHBM 2012, Beijing; p. 642.
34. Triggs T. D., Greve D. N., **Chen J. J.**, Rosas H. D. and Salat D. H. *Reduced organization of the default mode network in the aging brain: associations with cognition.* OHBM 2011, Quebec; p. 878.
35. **Chen J. J.**, Rosas H. D. and Salat D. H. *Association between cerebral blood flow and age-related changes in white matter microstructure.* ISMRM 2011, Montreal; p. 775.
36. **Chen J. J.**, Rosas H. D. and Salat D. H. *Age effects in the amplitude and frequency of resting-state BOLD fluctuations*. ISMRM 2011, Montreal; p. 774.
37. **Chen J. J.**, Rosas H. D. and Salat D. H. *White matter integrity is strongly associated with regional cerebral blood flow independently of age.* Organization for Human Brain Mapping (OHBM) Annual Meeting, 2011, Quebec; p. 559.
38. **Chen J. J.,** T. D. Triggs, Rosas H. D. and Salat D. H. *Age-dependence of BOLD connectivity in the default-mode – the influence of resting CBF.* OHBM 2010, Barcelona; p. 999.
39. **Chen J. J.**, Rosas H. D. and Salat D. H. *Age dependence of cortical and subcortical cerebral blood flow – measurement using pulsed arterial spin labeling*. HBM 2010, Barcelona; p. 868.
40. **Chen J. J.**, Salat D. H. and Rosas H. D. *Quantitative cerebral blood flow changes in Huntington's disease measured using pulsed arterial spin labeling*. ISMRM 2010, Stockholm; p. 15.
41. **Chen J. J.**, Rosas H. D. and Salat D. H. *Quantitative mapping of the age-dependence of cerebral blood flow using pulsed arterial spin labeling*. ISMRM 2010, Stockholm; p. 609.
42. **Chen J. J.**, Salat D. H. and Rosas H. D. *Quantitative cerebral blood flow changes and the association with tissue atrophy in Huntington's disease*. Hereditary Disease Foundation 2010 Meeting, Boston.
43. Salat D. H., Triggs T. D., **Chen J. J.**, Greve D. N. and Rosas H. D.. *Alterations in functional connectivity of the retrosplenial cortex in aging.* Society for Neuroscience (SfN) Annual Meeting, 2010, San Diego.
44. **Chen J. J.**, Rosas H. D. and Salat D. H. *The role of cerebral blood flow in age-associated change in white-matter microstructure.* Society for Neuroscience (SfN) Annual Meeting, 2010, San Diego.
45. **Chen J. J.**, Rosas H. D. and Salat D. H. *Cerebral blood flow mapping using pulsed arterial spin labeling: implications for fMRI.* Dallas Aging and Cognition Conference, 2010, Dallas.
46. Cohalan C., **Chen J. J.** and Pike G. B. *Cerebral blood volume during human neuronal activation measured using VASO and VERVE*. ISMRM 2009, Hawaii; p. 13.
47. **Chen J. J.** and Pike G. B. *Does global cerebral oxygen metabolism change during hypocapnia and hypercapnia in awake humans?* ISMRM 2009, Hawaii; p. 1627.

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48. **Chen J. J.** and Pike G. B. *Venous CBF-CBV relationship during end-tidal CO_2 manipulations in humans and its significance for BOLD fMRI.* HBM 2009, San Francisco; p. 624.
49. **Chen J. J.** and Pike G. B. *Evidence of $CMRo_2$ invariability during end-tidal CO_2 manipulations in humans.* HBM 2009, San Francisco; p. 622.
50. **Chen J. J.** and Pike G. B. *BOLD-specific flow-volume relationship during hypercapnia and hypocapnia in humans.* ISMRM 2009, Hawaii; p. 1627.
51. **Chen J. J.** and Pike G. B. *Origins of the BOLD post-stimulus undershoot.* ISMRM 2008, Toronto; p. 216.
52. **Chen J. J.** and Pike G. B. *Functional changes in cerebral blood flow and venous blood volume: what is the steady-state relationship?* OHBM 2008, Melbourne; p. 309.
53. **Chen J. J.** and Pike G. B. *Measuring hemodynamic contributions to the BOLD post-stimulus undershoot. O*HBM 2008, Melbourne, p. 656.
54. **Chen J. J.** and Pike G. B. *Steady-state relationship between cerebral blood flow and venous blood volume.* ISMRM 2008, Toronto; p. 1909.
55. **Chen J. J.**, Advani K., Pike G. B. *Characterization of the BOLD post-stimulus undershoot*. ISMRM 2007, Berlin; p. 2620.
56. **Chen J. J.** and Pike G. B. *Functional measurement of venous cerebral blood volume measurement at 3 Tesla.* HBM 2007, Chicago; p. 48.
57. **Chen J. J.** and Pike G. B. *Dynamic measurement of functional changes in venous cerebral blood volume at 3 Tesla*. ISMRM 2007, Berlin; p. 2617.
58. **Chen J. J.**, Smith M. R., Frayne R.. *Partial volume effects in quantitative magnetic resonance perfusion imaging,* IEEE EMBS International Conference, San Francisco, USA, 2004; 1406-9. PMID: 17271883
59. **Chen J. J.**, Smith M. R., Frayne R. *DSC MR contrast recirculation effects in CBF quantification based on frequency-domain modeling.* ISMRM 2004, Kyoto; 2004; 1384.
60. **Chen J. J.**, Smith M. R., S Trochet, Frayne R. *Advantages of frequency-domain modeling in magnetic resonance CBF quantification*. ISMRM 2003, Toronto; 2205.
61. **Chen J. J.**, Smith M. R., Frayne R. *Characteristics of frequency-domain modeling in DSC MR perfusion quantification.* Brain'03. Calgary.

Theses

1. **Chen J. J.** Cerebral Venous Blood Volume – Methodology for In Vivo Measurement and Implications for BOLD fMRI. 2009. McGill University.
2. **Chen J. J.** Magnetic Resonance Perfusion Quantification – The Advantages of Frequency-Domain Modeling and the Impact of Partial-Volume Effects. 2004. University of Calgary.

Patents

1. **Chen J. J.,** Golestani A. M. and Wei L. L. Methodology for quantitative mapping of cerebrovascular reactivity using resting-state fMRI (pending, US Patent Office, serial No. 62/253,440).

TRAINING AND SUPERVISION

Summary

Trainee	Primary Supervision	Co-supervision	Mentor	Completed
Postdoctoral	2	0	0	2
PhD	1	1	0	0
Master's	3	0	2	2

Undergraduate	13	0	0	9
Student supervisory committees	3			
Thesis examination committees	4			

Postdoctoral Fellows

1. *Primary Supervisor*, Ali Golestani (2013-2016): University of Toronto
    - Currently Physicist/Scientist at the University of Toronto
2. *Primary Supervisor*, Sungho Tak (2012-2014): University of Toronto
    - Awarded Newton International Fellowship. Currently Scientist at the Korean Basic Science Institute.

Graduate Students

1. *Primary Supervisor,* Don Ragot (2015-pres): MSc student, Medical Biophysics, U Toronto
2. *Primary Supervisor,* Powell Chu (2014-2016): MSc student, Medical Biophysics, U Toronto
3. *Primary Supervisor,* Jonathan Kwinta (2012-2015): MSc student, Medical Biophysics, University of Toronto
4. *Co-supervisor,* Zahra Faraji-Dana (2014-pres): PhD student, Medical Biophysics, U Toronto
    - Primary supervisor: Simon Graham
5. *Mentor*, Jean-Phillipe Coutu (2011-2013): PhD student, Harvard Medical School
    a. Currently research fellowship at Massachusetts General Hospital.
6. *Mentor,* Claire Cohalan (2008-2009): MSc student, McGill University
    a. Currently a Radiation Scientist at Radiation Safety Institute of Canada

Undergraduate Students

1. *Supervisor*, Abhay Issar (2016): Undergraduate researcher, University of Waterloo
2. *Supervisor*, Matthew Taylor (2016): Undergraduate researcher, University of Waterloo
3. *Supervisor*, Jordan Chad (2016): Undergraduate researcher, University of Toronto
4. *Supervisor*, Nicole Yuen (2016): Undergraduate researcher, University of Waterloo
    - Currently completing undergraduate degree in Life Physics at Waterloo.
5. *Supervisor*, Nathaniel Osachoff (2015): Undergraduate researcher, U. British Columbia
6. *Supervisor*, Luxi Wei (2015): Undergraduate researcher, U. British Columbia
    - Currently completing undergraduate degree in Biophysics at UBC.
7. *Supervisor*, Barry K. L. Fung (2014): Undergraduate researcher, University of Toronto
    - Currently completing undergraduate degree in Engineering Science (Biomedical Specialization) at the University of Toronto.
8. *Supervisor*, Sheliza Halani (2014): Undergraduate researcher, U. British Columbia
    - Currently enrolled in Medical School, University of Toronto.
9. *Supervisor*, Don Ragot (2013): Undergraduate researcher, University of Toronto
    - Currently Master's candidate in Medical Biophysics, University of Toronto
10. *Supervisor*, Lily Lau (2013): Undergraduate researcher, University of Toronto
    - Currently Biomedical Engineer, Panama City
11. *Supervisor*, Kathy Xu (2013): Co-op student, University of British Columbia
    - Currently Software Engineer, Airborn Radar Unit, MDA Group
12. *Supervisor*, Tim Liu (2012): Undergraduate researcher, University of Toronto
    - Manufacturing technical manager, Proctor and Gamble
13. *Supervisor*, Om Bhatt (2012): Undergraduate researcher, University of Toronto
    - Currently enrolled in Medical School, Western University

Thesis Supervisory Committee

1. Zahra Shirzadi (2014-present), PhD, Medical Biophysics, University of Toronto
2. Timothy Lam (2014-present), MSc, Physical Therapy, University of Toronto
3. Elvis Wianda (2012-present), PhD, Medical Biophysics, University of Toronto

Thesis/Reclassification Exam Committee

1. Christina Shu (2016), PhD, Biomedical Engineering, Yale University
2. Kevin Sam (2015), PhD, Institute of Medical Science, University of Toronto
3. Darren Fernandez (2015), PhD, Medical Biophysics, University of Toronto
4. Nathan Churchill (2013), PhD, Medical Biophysics, University of Toronto