

KELLY SHEN

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EDUCATION AND EMPLOYMENT

- Research Associate** 2015-present*
Rotman Research Institute, Baycrest
**on parental leave between October 2017 and June 2018*
- Postdoctoral Fellow** 2011-2015
Rotman Research Institute, Baycrest
Advisors: Dr. Randy McIntosh & Dr. Jennifer Ryan
- Ph.D., Neuroscience** 2011
Queen's University, Kingston, Ontario
Dissertation: "The role of primate superior colliculus in naturalistic visual search behavior"
Advisor: Dr. Martin Paré
- M.Sc., Neuroscience** 2006
Queen's University, Kingston, Ontario
Dissertation: "Superior colliculus neuronal activity predicts behavioral choice probability in visual conjunction search"
Advisor: Dr. Martin Paré
- B.Sc. (Hons), Life Sciences** 2004
Queen's University, Kingston, Ontario

FUNDING

1. "Building a Personalized Virtual Brain with Alzheimer's Disease to Guide Clinical Decisions" Alzheimer grant, *BrightFocus Foundation*, 2017-2020 (PI: AR McIntosh; Co-PI: **K Shen**)
2. "Differentiating dynamic neural model profiles in neurodegenerative disease" Biomarkers Across Neurodegenerative Diseases (BAND) grant, *Alzheimer's Association, Alzheimer's Research UK, The Michael J. Fox Foundation for Parkinson's Research and Weston Brain Institute*, 2015-2017 (PI: AR McIntosh; Co-PI: **K Shen**).

AWARDS & HONOURS

CIHR Fellowship Award	2011-2014
Jack and Rita Catherall Research Fund, Baycrest	2011-2012
NSERC Postgraduate Doctoral (PGS D) Scholarship	2007-2010
Society for Neuroscience Chapters Graduate Student Travel Award	2010
The Honourable Hugh F. Gibson Memorial Award, Queen's University	2010
Queen's University Graduate Dean's Doctoral Field Travel Grant	2010
Rovereto Attention Workshop Poster Award	2009
Canadian Physiological Society Student Travel Award	2007, 2009
Centre for Neuroscience Studies Award for Excellence, Queen's University	2006-2010
Harry Abramsky Foundation Fund Travel Award, Queen's University	2008
Society for Neuroscience Chapters Graduate Student Travel Award	2007
Gordon Research Conference Student Travel Award	2007
Canadian Association for Neuroscience Travel Award	2007
Elsevier/Vision Research Vision Sciences Society Travel Award	2007
Ontario Graduate Scholarship in Science and Technology	2006-2007
Centre for Neuroscience Studies Award for Outstanding Achievement, Queen's University	2006
Centre for Neuroscience Studies Research Day Award, Queen's University	2006
R. S. McLaughlin Fellowship	2005-2006
Canadian Physiological Society Presentation Award	2005
Eli Lilly Canadian Association for Neuroscience Travel Award	2004
Ingersoll-Rand Canada Inc. Undergraduate Scholarship	2000-2004

PROFESSIONAL ACTIVITIES

Workshop Leader, MATLAB Data Analysis of TheVirtualBrain Simulations Neural Signal & Image Processing Satellite Symposium, Canadian Association for Neuroscience Meeting	2019
Lecturer, Peking University Medical College Student Summer Training Program, Baycrest	2016, 2017
TheVirtualBrain Demo and Workshop Leader	2015-present
Workshop Leader, MEG Partial Least Squares Analysis 101, Baycrest	2016
Workshop Leader, Introduction to Partial Least Squares, Baycrest	2015
Research Ethics Board Member, Baycrest	2013
Social Coordinator, Student and Postdoc Section Executive Group Organization for Human Brain Mapping	2013-2014
Mentor, Research Training Committee Mentor Program, Baycrest	2011-2014
Annual Meeting Abstract Reviewer, Organization for Human Brain Mapping	2012, 2013
Internal Grant Reviewer, Baycrest	2011-2013
Graduate Student Representative Centre for Neuroscience Studies Executive Council, Queen's University	2009-2010
Teaching Assistant, Department of Physiology, Queen's University "Physiology for the Life Sciences", 2 nd year undergraduate level	2004-2006
Teaching Assistant, Centre for Neuroscience Studies, Queen's University "Fundamentals of Neurosciences", 3 rd year undergraduate level	2004-2005

SUPERVISORY EXPERIENCE

Zheng Wang, Research Analyst	2016-present
Darren Kenney, Baycrest Summer Student	2017, 2018
Complexity measures of EEG and eyetracking signals across development	
Brent Yang, Baycrest Summer Student	2017
Modeling resting-state fMRI in amnesia using TheVirtualBrain	
Alison McFadden, Baycrest Summer Student	2016
Brain signal complexity as an indicator of health status in a large and diverse clinical cohort	
Victoria Lee-Kim, Baycrest Summer Student	2015, 2016
Visual search retention is preserved across the lifespan	
Rajajee Selvam, Baycrest Summer Student	2015
An information processing stream for memory-guided visual behaviour	
Sarah Zaidi, Baycrest Summer Student	2015
Validating diffusion-weighted tractography methods using nonhuman primate models	
Leslie Watt, Baycrest Volunteer	2011-2013
The role of working memory in active vision	
Sarah Kalwarowsky, Queen's University Undergraduate Student	2008-2009
Effects of ketamine administration on visual search performance	

COMMUNITY AND VOLUNTEER ACTIVITIES

Podmaster, Ontario Science Centre BrainFest, MyVirtualDream Installation	2015
Lecturer, Ontario Science Centre SciFri Event	2013
Science Volunteer, Scotiabank Nuit Blanche, MyVirtualDream Installation	2013
Lecturer, Ontario College of Art and Design University Science-Art Collaboration	2013
Science Fair Judge, Grades 5-12 Regional Science Fair, Kingston, ON	2005-2008
Student Volunteer Instructor, Let's Talk Science Partnership Program, Kingston, ON	2006-2007
Student Volunteer Instructor	2004-2009
Centre for Neuroscience Studies Annual Brain Awareness Day, Queen's University	

AD HOC REVIEWER

Cerebral Cortex, European Journal of Neuroscience, Human Brain Mapping, Journal of Cognitive Neuroscience, Journal of Neurophysiology, Network Neuroscience, Neuroimage, Progress in Neurobiology, Scientific Reports

PROFESSIONAL MEMBERSHIPS

Organization for Human Brain Mapping	2011-present
Canadian Association for Neuroscience	2007-present
Society for Neuroscience	2004-present

PUBLICATIONS

1. **Shen K**, Goulas A, Grayson DS, Eusebio J, Gati JS, Menon RS, McIntosh AR, Everling S (2019) Exploring the limits of network topology estimation using diffusion-based tractography and tracer studies in the macaque cortex. *NeuroImage* 191: 81-92.
2. Schmidt M, Bakker R, **Shen K**, Bezgin G, Diesmann M, van Albada SJ (2018) A multi-scale layer-resolved spiking network model of resting-state dynamics in macaque visual cortical areas. *PLoS Computational Biology* 14(10): e1006359.
3. Liu ZX, **Shen K**, Olsen RK, Ryan JD (2018) Age-related changes in the relationship between visual exploration and hippocampal activity. *Neuropsychologia* 119: 81-91.
4. Liu ZX, **Shen K**, Olsen RK, Ryan JD (2017) Visual sampling predicts hippocampal activity. *Journal of Neuroscience* 37(3): 599-609.
5. **Shen K**, Bezgin G, Selvam R, McIntosh AR, Ryan JD (2016) An anatomical interface between memory and oculomotor systems. *Journal of Cognitive Neuroscience* 28(11):1772-83.
6. Grayson DS, Bliss-Moreau E, Machado CJ, Bennett J, **Shen K**, Grant K, Fair DA, Amaral DG (2016) The rhesus monkey connectome predicts disrupted functional networks resulting from pharmacogenetic inactivation of the amygdala. *Neuron* 91(2):453-466.
7. Zimmermann J, Ritter P, **Shen K**, Schirner M, Rothmeier S, McIntosh AR (2016) Structural architecture supports functional organization in the aging brain at a region-wise and network level. *Human Brain Mapping* 37(7):2645-61.
8. **Shen K***, Masic B*, Cipollini B, Askren M, Bezgin G, Buschkuehl M, Cimprich B, Hutchison RM, Jaeggi S, Jung M, Kross E, Peltier S, Reuter-Lorenz P, Everling S, Jonides J, McIntosh AR, Berman M (2015) Stable long-range interhemispheric coordination is supported by direct anatomical projections. *Proceedings of the National Academy of Sciences USA* 112(20):6473-6478.
**equal contributions*
9. **Shen K**, Hutchison RM, Bezgin G, Everling S, McIntosh AR (2015) Network structure shapes spontaneous functional connectivity dynamics. *Journal of Neuroscience* 35(14):5579-5588.
10. **Shen K**, McIntosh AR, Ryan JD (2014) A working memory account of refixations in visual search. *Journal of Vision* 14(14):11, 1-11.
11. Bezgin G, Rybacki K, van Opstal AJ, Bakker R, **Shen K**, Vakorin VA, McIntosh AR, Kötter R. (2014) Auditory-prefrontal axonal connectivity in the macaque cortex: Quantitative assessment of processing streams. *Brain and Language* 35:73-84.

12. Deco G, McIntosh AR, **Shen K**, Hutchison RM, Menon RS, Everling S, Hagmann P, Jirsa VK. (2014) Identification of optimal structural connectivity using functional connectivity and neural modeling. *Journal of Neuroscience* 34(23):7910-7916.
13. **Shen K**, Paré M (2014) Predictive saccade target selection in superior colliculus during visual search. *Journal of Neuroscience* 34(16):5640-5648.
14. **Shen K**, Bezgin G, Hutchison RM, Gati J, Menon R, Everling S, McIntosh AR (2012) Information processing architecture of functionally defined clusters in the macaque cortex. *Journal of Neuroscience* 32(48):17465-17476.
15. **Shen K**, Paré M (2012) Neural basis of feature-based contextual effects on visual search behavior. *Frontiers in Behavioral Neuroscience* 5:91.
16. **Shen K**, Valero J, Day GS, Paré M (2011) Investigating the role of the superior colliculus in active vision with the visual search paradigm. *European Journal of Neuroscience* 33(11):2003-2016.
17. **Shen K**, Kalwarowsky S, Clarence W, Brunamonti E, Paré M (2010) Beneficial effects of the NMDA antagonist ketamine on decision processes in visual search. *Journal of Neuroscience* 30(29):9947-9953.
18. Paré M, Thomas NWD, **Shen K** (2009) Saccade target selection in unconstrained visual search. In: *Cortical Mechanisms of Vision*, edited by Jenkin M, Harris L. Cambridge University Press. Chapter 13, p. 299-320.
19. **Shen K**, Paré M (2007) Neuronal activity in superior colliculus signals both stimulus identity and saccade goals during visual conjunction search. *Journal of Vision* 7(5):15, 1-13.
20. **Shen K**, Paré M (2006) Guidance of Eye Movements during Visual Conjunction Search: Local and Global Contextual Effects on Target Discriminability. *Journal of Neurophysiology* 95:2845-2855.

MANUSCRIPTS

Under revision, submitted or in preparation

1. **Shen K**, Bezgin G, Schirner M, Ritter P, Everling S, McIntosh AR (under revision, *Scientific Data*) A macaque connectome for large-scale network simulations in TheVirtualBrain. pre-print: <https://www.biorxiv.org/content/10.1101/480905v1>
2. Ryan J*, **Shen K***, Kacollja A, Tian H, Griffiths G, McIntosh AR (under revision) The functional reach of the hippocampal memory system to the oculomotor system. pre-print: <https://www.biorxiv.org/content/10.1101/303511v1>
*equal contributions

3. Kenney DM, McIntosh AR, Ryan JD, **Shen K** (in preparation) Brain signal complexity reflects visual information accumulation across fixations.
4. **Shen K**, McFadden A, McIntosh AR (in preparation) Signal complexity indicators of health status in clinical-EEG.
5. Wynn J, **Shen K**, Ryan JD (in preparation, invited review for *Vision*) Eye movements actively reinstate spatiotemporal mnemonic content.
6. Ryan JD, **Shen K**, Liu ZX (in preparation, invited review for *Annals of the New York Academy of Sciences* The Year in Cognitive Neuroscience Special Issue) The intersection between the oculomotor and hippocampal memory systems: empirical developments and clinical implications.

ABSTRACTS

1. **Shen K**, Wang Z, Brown T, Sodums D, McIntosh AR (2019) Cognitive impairment in Parkinson's disease is captured by personalized Virtual Brain models. Toronto, ON: Rotman Research Institute Conference.
2. Wang Z, **Shen K**, Brown, T, McIntosh AR (2019) Parameter optimization using TensorFlow in personalized Virtual Brain models of Parkinson's disease. Toronto, ON: Canadian Association for Neuroscience Annual Meeting.
3. **Shen K**, Wang Z, Brown T, McIntosh AR (2019) Cognitive impairment in Parkinson's disease is captured by personalized Virtual Brain models. Toronto, ON: Canadian Association for Neuroscience Annual Meeting.
4. **Shen K**, Everling S, McIntosh AR (2018) Creating a macaque connectome for large-scale network simulations in TheVirtualBrain. San Diego, CA: Society for Neuroscience.
5. **Shen K**, Everling S, McIntosh AR (2018) Creating a macaque connectome for large-scale network simulations in TheVirtualBrain. Montreal, QC: NeuroInformatics.
6. **Shen K**, McFadden A, McIntosh AR (2017) Signal complexity indicators of health status in clinical-EEG. Vancouver, BC: Organization for Human Brain Mapping.
7. **Shen K**, McFadden A, McIntosh AR (2017) Signal complexity indicators of health status in clinical-EEG. Toronto, ON: Rotman Research Institute Conference.
8. **Shen K**, Gati JS, Menon RS, Everling S, McIntosh AR (2016) A library of macaque connectomes for large-scale network simulations in TheVirtualBrain. Geneva, Switzerland: Organization for Human Brain Mapping.
9. **Shen K**, Bezgin G, Selvam R, McIntosh AR, Ryan JD (2016) An anatomical interface for the guidance of visual behavior by medial temporal lobe representations. Toronto, ON: Canadian Association for Neuroscience Annual Meeting.
10. **Shen K**, Bezgin G, Selvam R, McIntosh AR, Ryan JD (2016) An information processing stream from medial temporal lobe for memory-guided visual behavior. New York City, USA. 2016 Annual Meeting of the Cognitive Neuroscience Society.
11. **Shen K**, Goulas A, Gati J, Menon R, McIntosh AR, Everling (2015) Constructing the macaque connectome *in vivo* using diffusion weighted imaging: A comparison with tracer studies. *2015 Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2015. Online.

12. **Shen K**, Hutchison RM, Masic B, Berman M, Everling S, McIntosh AR (2015) Structural topology lends stability to a dynamic functional landscape. *2015 Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2015. Online.
13. **Shen K**, Bezgin G, McIntosh AR, Ryan JD (2015) Network analysis of anatomical connectivity reveals an information processing stream for memory-guided visual behavior. Vienna, Austria. 18th European Conference on Eye Movements.
14. **Shen K**, Masic B, Bezgin G, Buschkuehl M, Deldin PJ, Hutchison RM, Jaeggi SM, Kross E, Peltier S, Everling S, Jonides J, Berman MG, McIntosh AR (2014) Network structure supports stable functional connectivity of homotopic regions across time and conditions. *2014 Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2014. Online.
15. Farbodkia S, **Shen K**, Day G, Paré M (2014) How noise correlations impact the amount of information in superior colliculus: The analysis of a population with shared receptive fields. Quebec, Canada: 23rd Annual Computational Neuroscience Meeting.
16. **Shen K**, Masic B, Askren M, Bezgin G, Buschkuehl M, Cimprich B, Deldin P, Hutchison RM, Jaeggi S, Jung M, Kross E, Peltier S, Reuter-Lorenz P, Menon R, Everling S, Jonides J, McIntosh AR, Berman M (2014) Homotopic functional connections are most stable and are supported by direct anatomical projections. Hamburg, Germany: Organization for Human Brain Mapping, 2014.
17. Bezgin G, **Shen K**, van Opstal AJ, Bakker R, McIntosh AR (2014) Auditory processing streams in the primate cerebral cortex: modelling, lesioning and analysis. Hamburg, Germany: Organization for Human Brain Mapping, 2014.
18. **Shen K**, Hutchison RM, Bezgin G, Gati JS, Menon RS, Everling S, McIntosh AR (2013). Network structure constrains the dynamics of spontaneous brain activity. *2013 Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2013. Online.
19. **Shen K**, McIntosh AR, Ryan JD (2013) Visual search retention is preserved across the lifespan. Lund, Sweden: 17th European Conference on Eye Movements.
20. Farbodkia S, **Shen K**, Day GS, Paré M (2013) How noise correlation impacts population code in superior colliculus: An information theoretic approach. Paris, France: 22nd Annual Computational Neuroscience Meeting.
21. **Shen K**, Hutchison RM, Bezgin G, Gati JS, Menon RS, Everling S, McIntosh AR (2013) Resting-state functional connectivity dynamics are influenced by network structure. Toronto, ON: Canadian Association for Neuroscience Annual Meeting.
22. **Shen K**, Bezgin G, Hutchison RM, Gati J, Menon R, Everling S, McIntosh AR (2012) Anatomical connectivity supports functional community structure in macaque cortex. New Orleans, LA: Society for Neuroscience, 2012.
23. Farbodkia S, **Shen K**, Day GS, Paré M (2012) How does superior colliculus neuronal activity account for visual search performance. New Orleans, LA: Society for Neuroscience, 2012.
24. **Shen K**, Bezgin G, Hutchison RM, Gati J, Menon R, McIntosh AR, Everling S (2012) Resting-state connectivity reflects underlying anatomical structure in the macaque cortex. Beijing, China: Organization for Human Brain Mapping, 2012.
25. **Shen K**, Ryan JD, McIntosh AR (2011) Visual working memory capacity predicts visual search efficiency. Program No. 801.15. *2011 Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2011. Online.

26. **Shen K**, Johnston K, Valero J, Day G, Paré M (2010) Contribution of superior colliculus persistent activity to visual working memory. Program No. 778.14. *2010 Neuroscience Meeting Planner*. San Diego, CA: Society for Neuroscience, 2010. Online.
27. **Shen K**, Paré M (2010) Neural basis of object memory during visual search. Naples, FL: Vision Sciences Society 9th Annual Meeting.
28. **Shen K**, Paré M (2010) Searching with memory. Montreal, QC: 2010 Annual Meeting of The Cognitive Neuroscience Society.
29. **Shen K**, Paré M (2009) Neural basis of contextual and featural attention effects on visual search strategy. Rovereto Attention Workshop. Rovereto, Italy: University of Trento Center for Mind/Brain Sciences.
30. **Shen K**, Paré M (2009) Information retention and predictive saccade target selection in multiple-fixation visual search. Program No. 263.25. *2009 Neuroscience Meeting Planner*. Chicago, IL: Society for Neuroscience, 2009. Online.
31. **Shen K**, Paré M (2009) Accumulation of information and predictive selection during naturalistic visual search. Annual Neuroscience Research Day. Kingston, ON: Queen's University Centre for Neuroscience Studies.
32. **Shen K**, Paré M (2009) Neural mechanisms underlying sequences of gaze fixations during visual search. Southampton, England: 15th European Conference on Eye Movements.
33. Paré M, **Shen K** (2009) Visual search strategy explained by featural attention modulation of superior colliculus activity. Southampton, England: 15th European Conference on Eye Movements.
34. **Shen K**, Paré M (2009) The effect of non-spatial feature-based attention on sensory-motor activity during visual search. McMaster University, Hamilton, Ontario: Summer Workshop on Attention and Performance.
35. **Shen K**, Paré M (2009) Advance selection of visual objects during visual search. *Canadian Physiological Society Conference Proceedings 2009*.
36. Kalwarowsky S, Clarence W, **Shen K**, Paré M (2009) Effects of NMDA receptor blockade on visual search performance in macaque monkeys. *Canadian Physiological Society Conference Proceedings 2009*.
37. **Shen K**, Paré M (2008) Concurrent processing of visual stimuli across multiple gaze fixations during visual search. Program No. 812.6. *2008 Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2008. Online.
38. Kalwarowsky S, Clarence W, **Shen K**, Paré M (2008) Low doses of ketamine lengthen response time and improve response accuracy during visual search. Program No. 165.1. *2008 Neuroscience Meeting Planner*. Washington, DC: Society for Neuroscience, 2008. Online.
39. **Shen K**, Paré M (2008) Sequences of visual search eye movements are processed in advance of visual receptive field activation. Montreal, QC: Canadian Association for Neuroscience 2nd Annual Meeting.
40. Kalwarowsky S, Clarence W, Warfe M, Brunamonti E, **Shen K**, Paré M (2008) Blocking NMDA receptor activity lengthens response time and improves response accuracy during visual search. Montreal, QC: Canadian Association for Neuroscience 2nd Annual Meeting.
41. **Shen K**, Paré M (2008) Selection and timing of gaze fixations in visual conjunction search. Selection Naples, FL: Vision Sciences Society 7th Annual Meeting.
42. **Shen K**, Paré M (2007) Effects of image composition on parallel and serial neural mechanisms for visual search in superior colliculus. *2007 Abstract Viewer/ Itinerary Planner*. San Diego, CA: Society for Neuroscience, 2007.

43. **Shen K**, Paré M (2007) Parallel and serial neural mechanisms of attention in superior colliculus during visual search. Annual Neuroscience Research Day. Kingston, ON: Queen's University Centre for Neuroscience Studies.
44. **Shen K**, Paré M (2007) Neuronal activity in superior colliculus signals both stimulus identity and saccade goals during visual conjunction search. Gordon Research Conference: Oculomotor System Biology. Lewiston, ME: Bates College.
45. **Shen K**, Paré M (2007) The neural representations of stimulus salience predicts behavioral choice when selecting visual objects. *Cortical Mechanisms in Vision Conference Proceedings*. A1. Toronto, ON: York University Centre for Vision Research.
46. **Shen K**, Paré M (2007) The neural representations of stimulus salience predicts behavioral choice when selecting visual objects. Abstract 53 D103. Toronto, ON: Canadian Association for Neuroscience 1st Annual Meeting.
47. **Shen K**, Paré M (2007) Effects of visual salience on superior colliculus neural activity during visual conjunction search. Sarasota, FL: Vision Sciences Society 6th Annual Meeting.
48. **Shen K**, Paré M (2007) Superior colliculus activity reflects the guidance of visual attention during visual conjunction search. *Canadian Physiological Society Conference Proceedings 2007*.
49. **Shen K**, Paré M (2006) Superior colliculus neural activity predicts saccade probability in visual conjunction search. Program No. 48.4. *2006 Neuroscience Meeting Planner*. Atlanta, GA: Society for Neuroscience, 2006. Online.
50. **Shen K**, Paré M (2006) Neural Representations of Multiple Objects in during Visual Search. Second Annual Neuroscience Research Day. Kingston, ON: Queen's University Centre for Neuroscience Studies.
51. **Shen K**, Paré M (2006) Correct Target Selection by Superior Colliculus Neurons during Visual Conjunction Search. Ninth Annual Meeting for Health Sciences Research Trainees. Kingston, ON: Queen's University Faculty of Health Sciences, 2006.
52. **Shen K**, Paré M (2006) Correct Target Selection in Superior Colliculus Neurons during Visual Search. *Southern Ontario Neuroscience Association 2006 Conference Proceedings*.
53. **Shen K**, Paré M (2006) Computation of Correct Target Selection in Superior Colliculus. Twenty-eighth International Symposium on Computational Neuroscience. Montréal, QC: Université de Montréal Groupe de Recherche sur le Système Nerveux Central
54. **Shen K**, Paré M (2005) Effects of Image Composition on Saccade Target Selection in Superior Colliculus Neurons During Conjunction Visual Search. Program No. 167.1. *2005 Abstract Viewer/ Itinerary Planner*. Washington, DC: Society for Neuroscience, 2005. Online.
55. **Shen K**, Paré M (2005) Effects of Image Composition on Saccade Target Selection in Superior Colliculus Neurons During Conjunction Visual Search. First Annual Neuroscience Research Day. Kingston, ON: Queen's University Centre for Neuroscience Studies.
56. **Shen K**, Paré M (2005) Effects of Image Composition on Saccade Target Selection in Superior Colliculus Neurons During Conjunction Visual Search. *Computational Vision in Neural and Machine Systems Conference Proceedings* P36. Toronto, ON: York University Centre for Vision Research.
57. **Shen K**, Paré M (2005) Effects of Image Composition on Saccade Target Selection in Monkey Superior Colliculus. *Southern Ontario Neuroscience Association 2005 Conference Proceedings* P77.

58. **Shen K**, Paré M (2005) Effects of Image Composition on Saccade Target Selection in Monkey Superior Colliculus. Eighth Annual Meeting for Basic and Clinical Research Trainees. Kingston, ON: Queen's University Faculty of Health Sciences, 2005.
59. **Shen K**, Clarence WM, Paré M (2005) The Effects of Image Composition on Visual Behavior. *Canadian Physiological Society Conference Proceedings 2005*:50-C5.
60. **Shen K**, Clarence WM, Paré M (2004) Visual Search Efficiency is Affected by Local and Global Contextual Factors. Program No. 313.17. *2004 Abstract Viewer/ Itinerary Planner*. San Diego, CA: Society for Neuroscience, 2004. Online.
61. **Shen K**, Clarence WM, Paré M (2004) Contextual Factors Affecting Visual Search Behavior. Seventh Annual Meeting for Basic and Clinical Research Trainees. Kingston, ON: Queen's University Faculty of Health Sciences, 2004.
62. **Shen K**, Valero J, Clarence WM, Paré M (2004) Contextual Factors Affecting Visual Search Behavior. *Southern Ontario Neuroscience Association 2004 Conference Proceedings* P46(63).

INVITED PRESENTATIONS

1. Krembil/Toronto Western Neuroimaging Rounds, Toronto Western Hospital (Toronto, ON; September 2017) Network topology estimation is limited in diffusion-based tractography.
2. Rotman Research Institute Rounds, Baycrest (Toronto, ON; November 2015) Structural topology lends stability to a dynamic functional landscape.
3. Research Imaging Rounds, Centre for Addiction and Mental Health (Toronto, ON; November 2015) Structural topology lends stability to a dynamic functional landscape.
4. Society for Neuroscience Meeting (Chicago, IL; October 2015) Structural topology lends stability to a dynamic functional landscape.
5. European Conference on Eye Movements (Vienna, Austria; August 2015) Network analysis of anatomical connectivity reveals an information processing stream for memory-guided visual behavior.
6. Rotman Institute of Philosophy, Western University (London, ON; April 2015) Uncovering memory processes in active vision.
7. Society for Neuroscience Meeting (Washington, DC; November 2014) Network structure supports stable functional connectivity of homotopic regions across time and conditions.
8. Netherlands Institute for Neuroscience (Amsterdam, The Netherlands; June 2014) Visual attention and working memory contributions to visual search efficiency.
9. Southern Ontario Neuroscience Association Annual Meeting (London, ON; May 2014) Anatomical constraints on functional network organization and dynamics.
10. Department of Kinesiology Seminar, University of Waterloo (Waterloo, ON; February 2014) Selective attention and working memory processes in active vision.
11. Rotman Research Institute Rounds, Baycrest (Toronto, ON; February 2013) Brain structure & function: models, monkeys and man.
12. Rotman Research Institute Rounds, Baycrest (Toronto, ON; April 2011) Neural basis of object memory during visual search.
13. Centre for Addiction and Mental Health (Toronto, ON; July 2010) Effects of ketamine on decision processes in visual search.

14. Centre for Neuroscience Studies Seminar Series, Queen's University (Kingston, ON; March 2010) Attention, memory and predictive selection in the superior colliculus during visual search.
15. Neuroethology and Sensory Biology Discussion Group, Queen's University (Kingston, ON; February 2009) Attention and salience in the superior colliculus during visual search.
16. Group on Action and Perception Retreat, University of Western Ontario (Ingersoll, ON; April 2008) Parallel and serial neural mechanisms for visual search.
17. Vision Sciences Society Annual Meeting Award Presentation (Sarasota, FL; May 2007) Effects of visual salience on superior colliculus neural activity during visual conjunction search.
18. Centre for Neuroscience Studies Research Day, Queen's University (Kingston, ON; September 2006) Neural representations of multiple objects during visual search.
19. Physiology Graduate Association Methods Seminar Series, Queen's University (Kingston, ON; July 2006) Extracellular recording techniques in non-human primates.
20. Department of Physiology Seminar Series, Queen's University (Kingston, ON; March 2006) Neural representations of multiple objects during visual search.