

# DIRK BERNHARDT-WALTHER

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Department of Psychology  
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## POSITIONS

- 2014 – current Assistant Professor, Department of Psychology, University of Toronto (St. George)
- 2012 – 2014 Associate Director, Center for Cognitive and Brain Sciences, The Ohio State University
- 2010 – 2014 Assistant Professor, Department of Psychology, The Ohio State University
- 2009 – 2010 Postdoctoral Research Associate, Beckman Institute, University of Illinois at Urbana-Champaign
- 2006 – 2009 Beckman Postdoctoral Fellow, Beckman Institute, University of Illinois at Urbana-Champaign
- 2006 Postdoctoral Fellow, Centre for Vision Research, York University, Toronto, ON
- 1999 – 2000 Research Consultant, Lucent Technologies Bell Laboratories, Murray Hill, NJ

## EDUCATION

- 2006 Ph.D., Computation and Neural Systems, California Institute of Technology  
Advisors: Dr. Christof Koch, Dr. Pietro Perona
- 1999 M.Phil, Physics, Trinity College, University of Cambridge, Cambridge, UK  
Advisor: Dr. Howard P. Hughes.
- 1995 – 1998 Undergraduate studies in Physics and Computer Science, Universität Leipzig, Leipzig, Germany, Vordiplom in Physics (1997) and in Computer Science (1998)

## ACADEMIC HONORS AND FELLOWSHIPS

- 2012 Fred Brown Research Award for best research paper: Department of Psychology, The Ohio State University
- 2006 – 2009 Beckman Postdoctoral Fellowship, University of Illinois at Urbana-Champaign
- 2007 Conference Travel Award for Computational and Systems Neuroscience (Cosyne)
- 2007 Conference Travel Award for Grand Challenges in Neural Computation
- 2005 – 2006 Pre-doctoral Fellowship, Sloan-Swartz Center for Theoretical Neuroscience, California Institute of Technology
- 2005 Best Poster Presentation Award at the Joint Symposium on Neural Computation, University of California Los Angeles
- 2004 Best Poster Presentation Award at the International Conference on Computer Vision and Pattern Recognition, Washington, D.C.
- 2000 – 2001 Milton E. Mohr Graduate Fellowship, California Institute of Technology
- 1996 – 2001 Fellow of the Studienstiftung des deutschen Volkes (German National Scholarship Foundation)

**GRANTS**

- 2015 – 2020 PI, Discovery Grant, Natural Sciences and Engineering Research Council of Canada  
*Neural mechanisms of perceiving dynamic real-world environments*  
Research support: CAD 120,000
- 2015 – 2017 PI, Connaught New Researcher Award, Connaught Fund, University of Toronto  
*Disentangling influences on the perception of real-world scenes in time and space*  
Research support: CAD 9,944.72
- 2015 – 2018 PI, John R. Evans Leaders Fund  
*Neural mechanisms of natural scene perception*, Research support:  
Canadian Foundation for Innovation: CAD 100,000  
Ontario Research Fund: CAD 100,000  
University of Toronto: CAD 34,383
- 2014 – 2019 co-PI (PI: Vladimir Sloutsky), National Institute for Child Health and Human  
Development (HD078545-A1, R01), *The Development of Categorization*  
Research support: USD 1,925,000.00
- 2011 – 2013 PI, Seed Grant, Center for Cognitive Science, The Ohio State University  
*Eye movements as an objective measure of categorization performance*  
Research support: USD 26,838
- 2008 – 2013 co-PI (PI: Fei-Fei Li), National Eye Institute (NIH 1 R01 EY019429),  
*CRCNS: fMRI Pattern Analysis of Neural Correlates of Natural Scenes Categories*  
Research support: USD 1,302,157
- 2008 – 2010 co-PI (PI: Mark Hasegawa-Johnson), National Science Foundation  
(NSF 0803219, RI-medium),  
*Audio Diarization - Towards Comprehensive Description of Audio Events*  
Research support: USD 249,864
- 2002 – 2003 PI, Seed Grant, Institute for Neuromorphic Engineering  
*Detection of visual events in underwater video using a neuromorphic saliency-based  
attention system*, Research support: USD 5,000

**TEACHING EXPERIENCE**

Undergraduate: Sensation and Perception; Natural Scene Perception (seminar)  
Graduate: Natural Scene Perception; Pattern Recognition in Neuroimaging

**PUBLICATIONS**

Google Scholar Profile: <https://scholar.google.ca/citations?user=rnps4mqAAAAJ&hl=en>

Emanuele Olivetti and **Dirk B. Walther** (2015) A Bayesian Test for Comparing Classifier Errors, *Proceedings of the 5th International Workshop on Pattern Recognition in Neuroimaging*: 69-72, Stanford, CA.

Thomas O'Connell and **Dirk B. Walther** (2015) Dissociation of salience-driven and content-driven spatial attention to scene category with predictive decoding of gaze patterns, *Journal of Vision*, 12(5):20, 1-13, doi:10.1167/15.5.20.

Michael R. Richards, Stephen Rosenstiel, Henry W. Fields, Jr, F. Michael Beck, Allen R. Firestone, **Dirk B. Walther**, and James M. Sackstederg (2015) Contribution of malocclusion and female facial attractiveness to smile esthetics evaluated by eye tracking, *American Journal of Orthodontics and Dentofacial Orthopedics*, 147(4):472-82.

**Dirk B. Walther** and Dandan Shen (2014) Nonaccidental Properties Underlie Human Categorization of Complex Natural Scenes, *Psychological Science*, 25(4): 851-860, doi: 10.1177/0956797613512662

Kyungtae Kim, Kai-Hsiang Lin, **Dirk B. Walther**, Mark A. Hasegawa-Johnson, Thomas S. Huang (2014) Automatic Detection of Auditory Salience with Optimized Linear Filters Derived from Human Annotation, *Pattern Recognition Letters*, 38: 78-85. dx.doi.org/10.1016/j.patrec.2013.11.010

**Dirk B. Walther** (2013) Using confusion matrices to estimate mutual information between two categorical measurements, *Proceedings of the 3rd International Workshop on Pattern Recognition in NeuroImaging*: 220-224. Philadelphia, PA.

Ana Torralbo, **Dirk B. Walther**, Barry Chai, Eamon Caddigan, Li Fei-Fei, Diane M. Beck (2013) Good Exemplars of Natural Scene Categories Elicit Clearer Patterns than Bad Exemplars but Not Greater BOLD Activity. *PLoS ONE* 8(3): e58594. doi:10.1371/journal.pone.0058594 10.1371/journal.pone.0058594

Samuel Rivera, Catherine Best, Hyungwook Yim, Aleix Martinez, Vladimir Sloutsky, **Dirk B. Walther** (2012). Automatic selection of eye tracking variables in visual categorization for adults and infants. In N. Miyake, D. Peebles, & R. P. Cooper (Eds.), *Proceedings of the 34th Annual Conference of the Cognitive Science Society*: 2240-2245. Austin, TX: Cognitive Science Society.

**Dirk B. Walther**, Barry Chai, Eamon Caddigan, Diane M. Beck, and Li Fei-Fei (2011), Simple line drawings suffice for functional MRI decoding of natural scene categories, *Proceedings of the National Academy of Sciences of the USA* 108 (23): 9661-9666.

Loan T.K. Vo, **Dirk B. Walther**, Arthur F. Kramer, Kirk I. Erickson, Walter R. Boot, Michelle W. Voss, Ruchika S. Prakash, Monica Fabiani, Gabriele Gratton, Daniel J. Simons, and Michelle Y. Wang (2011), Predicting Individuals' Learning Success from Patterns of Pre-learning MRI Activity. *PLoS One* 6(1): e16093. doi: 10.1371/journal.pone.0016093

**Dirk B. Walther**, Eamon Caddigan, Li Fei-Fei, and Diane M. Beck (2009), Natural scene categories revealed in distributed patterns of activity in the human brain, *Journal of Neuroscience*, 29(34):10573–10581.

Bangpeng Yao, **Dirk B. Walther**, Diane M. Beck, and Li Fei-Fei (2009) Hierarchical Mixture of Classification Experts Uncovers Interactions between Brain Regions, *Neural Information Processing Systems*: 2178-2186.

Barry Chai\*, **Dirk B. Walther**\*, Diane M. Beck, and Li Fei-Fei (2009) Exploring Functional Connectivity of the Human Brain using Multivariate Information Analysis, *Neural Information Processing Systems*, 270-278. (\* indicates equal contribution)

Huazhong Ning, Tony X. Han, **Dirk B. Walther**, Ming Liu, and Thomas Huang (2009), Hierarchical Space-Time Model Enabling Efficient Search for Human Actions, *IEEE Transactions on Circuits and Systems for Video Technology*, 19(6): 808-820.

**Dirk B. Walther** and Li Fei-Fei (2007) Task-set switching with natural scenes: Measuring the cost of deploying top-down attention. *Journal of Vision*, 7(11):9, 1-12.

**Dirk Walther** and Christof Koch (2006) Modeling attention to salient proto-objects, *Neural Networks*, 19(9): p. 1395-1407.

**Dirk Walther\***, Ueli Rutishauser\*, Christof Koch, and Pietro Perona (2005) Selective visual attention enables learning and recognition of multiple objects in cluttered scenes, *Computer Vision and Image Understanding*, 100: 41-63. (\* indicates equal contribution)

**Dirk Walther**, Duane R. Edgington, and Christof Koch (2004) Detection and Tracking of Objects in Underwater Video. *IEEE International Conference on Computer Vision and Pattern Recognition*, 1: 544-549.

Ueli Rutishauser\*, **Dirk Walther\***, Christof Koch, and Pietro Perona (2004) Is bottom-up attention useful for object recognition? *IEEE International Conference on Computer Vision and Pattern Recognition*, 2: 37-44. (\* indicates equal contribution)

**Dirk Walther**, Ueli Rutishauser, Christof Koch, and Pietro Perona (2004), On the usefulness of attention for object recognition, *2nd Workshop on Attention and Performance in Computational Vision at the European Conference for Computer Vision*, 96-103.

**Dirk Walther**, Laurent Itti, Maximilian Riesenhuber, Tomaso Poggio, and Christof Koch (2002) Attentional Selection for Object Recognition – a Gentle Way. *Biologically Motivated Computer Vision – Lecture Notes in Computer Science*, Springer 2525: 472-479.

D. Chung, R. Hirata, T. N. Mundhenk, J. Ng, R. J. Peters, E. Pichon, A. Tsui, T. Ventrice, **D. Walther**, P. Williams, and L. Itti (2002) A New Robotics Platform for Neuromorphic Vision: Beobots. *Biologically Motivated Computer Vision – Lecture Notes in Computer Science*, Springer 2525: 558-566.

## PUBLICATIONS IN PROGRESS

Heeyoung Choo and **Dirk B. Walther**, Contour junctions underlie neural representations of scene categories in human visual cortex, *under review*

Heeyoung Choo, Bardia Nikrahei, Jack Nasar, and **Dirk B. Walther**, Neural decoding of architectural styles from scene-specific brain regions, *in prep.*

Heeyoung Choo and Dirk B. Walther, Disrupting Local Structure Impairs Human Scene Categorization More than Disrupting Global Texture, *in prep.*

Yaelan Jung, Bart Larsen, and **Dirk B. Walther**, Cross-modal representations of visual and auditory in the human brain, *in prep.*

Claudia Damiano and **Dirk B. Walther**, Content, not context, facilitates memory for real-world scenes, *in prep.*

Thomas O'Connell, Per B. Sederberg, and **Dirk B. Walther**, Scene structure preserved in line drawings is sufficient to represent scene category but not scene identity in scene-selective cortex, *in prep.*

Loan T. K. Vo, Hyunkyoo Lee, Michelle Y. Wang, Arthur F. Kramer, Walter R. Boot, Michelle W. Voss, Kirk I. Erickson, and **Dirk B. Walther**, Brain Nonheme Iron Captured in Time-averaged T2\* Signal Can Predict Learning Abilities, *in prep.*

## BOOK CHAPTERS

**Dirk B. Walther**, Diane M. Beck, and Li Fei-Fei (2012) To err is human: correlating fMRI decoding and behavioral errors to probe the neural representation of natural scene categories. in: Nikolaus Kriegeskorte and Gabriel Kreiman (eds.), *Visual population codes – Toward a common multivariate framework for cell recording and functional imaging*, MIT Press, Cambridge, Massachusetts, pp. 391-415.

**Dirk B. Walther** and Christof Koch (2007) Attention in Hierarchical Models of Object Recognition. in Paul Cisek, Trevor Drew, and John F. Kalaska (eds.), *Computational Neuroscience: Theoretical insights into brain function, Progress in Brain Research*, 165: 57-78.

### POPULAR SCIENCE PUBLICATIONS

Nachiket Kapre, **Dirk Walther**, Christof Koch, and André DeHon (2004) Saliency on a chip – a digital approach on an FPGA. *The Neuromorphic Engineer* 2: 9-11.

**Dirk Walther**, and Duane Edgington (2004) The art of seeing jellies. *The Neuromorphic Engineer* 1: 6-6.

### CONFERENCE PRESENTATIONS (LAST 3 YEARS)

Claudia Damiano and Dirk B. Walther (2015), Content, not context, facilitates memory for real-world scenes, *23rd Annual Workshop on Object Perception, Attention, and Memory*, Chicago, IL. (oral)

Yaelan Jung, Bart Larsen, and **Dirk B. Walther** (2015), Conceptual representations of scene categories in prefrontal cortex transcend sensory modalities, *Annual Meeting of the Society for Neuroscience*, Chicago, IL. (oral)

Heeyoung Choo and **Dirk B. Walther** (2015), Emergence of scene structure in the human brain: 2d cues to 3d shape are essential for neural representations of scene categories, *Annual Meeting of the Society for Neuroscience*, Chicago, IL. (oral)

Claudia Damiano and **Dirk B. Walther** (2015), Gaze patterns are predictive of scene category across line drawings and photographs, *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL.

Heeyoung Choo, Bardia Nikrahei, Jack Nasar, and **Dirk B. Walther** (2015), Neural decoding of architectural styles from scene-specific brain regions, *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL.

**Dirk B. Walther** (2015) Which features do people use to categorize natural scene? *Annual Interdisciplinary Conference*, Jackson Hole, WY. (oral)

Daniel Berman, **Dirk B. Walther** (2014) Differential Selectivity for Spatial Frequencies in Anterior and Posterior PPA. *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL.

Andrew Serger, Thomas O'Connell, **Dirk B. Walther** (2014) Manual versus automatic segmentation of functional regions of interest: Effects on multi-voxel pattern analysis and repetition suppression, *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL.

Heeyoung Choo, Dandan Shen, **Dirk B. Walther** (2014) Local Structure Drives Human Scene Categorization: Converging Evidence from Computational Analysis, Behavior, and Neural Decoding, *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL. (oral)

Alex Martinez, Shichuan Du, **Dirk B. Walther** (2014) Brain Networks for the Categorization of Facial Expressions of Emotion, *Annual Meeting of the Vision Sciences Society*, St. Pete Beach, FL.

**Dirk B. Walther** and Bart Larsen (2013) Category-specific neural activation patterns of acoustically and visually presented natural scenes are modulated by cross-modal attention. *Annual Meeting of the Society for Neuroscience*, San Diego, CA.

Thomas P. O'Connell, Per B. Sederberg, and **Dirk B. Walther** (2013) Line drawings and photographs of natural scenes share neural representation of category but not identity. *Annual Meeting of the Society for Neuroscience*, San Diego, CA.

Heeyoung Choo and **Dirk B. Walther** (2013) Contour junctions, not orientations are essential for eliciting scene category-specific neural activation patterns in human ventral cortex. *Annual Meeting of the Society for Neuroscience*, San Diego, CA.

**Dirk B. Walther** (2013) Scene categorization is based on structural, not textural features. *Annual Summer Interdisciplinary Conference*, Cortina d'Ampezzo, Italy. (oral)

**Dirk B. Walther** and Dandan Shen (2013) Structural, not spectral properties underlie human categorization of natural scenes. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Heeyoung Choo and **Dirk B. Walther** (2013) Human scene categorization relies more on local structures than on global texture of an image. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Thomas O'Connell and **Dirk B. Walther** (2013) fMRI repetition suppression for scenes depends on identical feature representation. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Daniel Berman and **Dirk B. Walther** (2013) Increasing efficiency of fMRI retinotopic mapping using Maximum Length Sequences. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Shichuan Du, **Dirk B. Walther**, and Aleix Martinez (2013) Mostly Categorical but also Continuous Representation of Emotions in the Brain: An fMRI study. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Samuel Rivera, Aleix Martinez, **Dirk B. Walther**, and Vladimir Sloutsky (2013) The emotion category of expressive faces becomes more influential over development. *Biennial Meeting of the Society for Research in Child Development*, Seattle, WA.

Dandan Shen and **Dirk B. Walther** (2012) Categorization of line drawings of natural scenes using non-accidental properties matches human behavior. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Thomas O'Connell and **Dirk B. Walther** (2012) Fixation patterns predict scene category. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Bart Larsen and **Dirk B. Walther** (2012) Measuring the temporal order of feature processing in natural scene categorization. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

Samuel Rivera, Catherine Best, Hyungwook Yim, **Dirk B. Walther**, Vladimir Sloutsky, Aleix Martinez (2012) Automatic selection of eye tracking variables uncovers similar mechanisms for visual categorization in adults and infants. *Annual Meeting of the Vision Sciences Society*, Naples, FL.

**Dirk B. Walther** and Bart Larsen (2012) Relating patterns of EEG activity to natural scene categories. *Computational and Systems Neuroscience*, Salt Lake City, UT

## INVITED TALKS

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|-----------|---|
| June 2015 | International Conference on Perceptual Organization, Centre for Vision Research<br>York University, Toronto, Canada |
| June 2015 | Google Inc., Mountain View, California, USA   |
| June 2015 | Department of Psychology, Stanford University, California, USA  |

- May 2015 University of Toronto/Tel Aviv University Joint Imaging Conference, Toronto, Canada
- March 2015 Department of Computer Science, University of Toronto, Canada
- Nov. 2014 Centre for Vision Research, York University, Toronto, Canada
- Oct. 2014 Department of Psychology, University of Toronto, Canada
- July 2013 Center for Information Technology, Fondazione Bruno Kessler, Trento, Italy
- June 2013 University of Pennsylvania, Philadelphia, Pennsylvania, USA
- Nov. 2012 Department of Psychology, University of Toronto, Canada
- May 2011 Cogfest, Center for Cognitive Science, The Ohio State University, Columbus, Ohio, USA
- Feb. 2011 Donders Institute for Brain, Cognition and Behaviour, Nijmegen, Netherlands
- Feb. 2011 Netherlands Institute for Neuroscience, Amsterdam, Netherlands
- June 2010 Max Planck Institute for Biological Cybernetics, Tübingen, Germany
- Feb. 2010 Department of Cognitive Science, Johns Hopkins University, Baltimore, Maryland, USA
- Feb. 2010 Department of Psychology, The Ohio State University, Columbus, Ohio, USA
- June 2009 Leibniz Institute for Neurobiology, University of Magdeburg, Germany
- Apr. 2008 Beckman Institute Director's Seminar, University of Illinois, Urbana, Illinois, USA
- March 2008 Workshop on "Characterizing and decoding distributed brain representations" at Cosyne, Snowbird, Utah, USA
- Dec. 2007 Workshop on "Models and mechanisms of visual attention: a critical appraisal" at NIPS, Whistler, British Columbia, Canada
- Feb. 2007 Scene Understanding Symposium at MIT, Cambridge, Massachusetts, USA
- June 2005 Workshop on "Attention and Performance in Computational Vision" at CVPR San Diego, California, USA
- Nov. 2004 MIT Perceptual Science Laboratory, Cambridge, Massachusetts, USA
- Aug. 2003 Monterey Bay Aquarium Research Institute, Moss Landing, California, USA
- Nov. 2002 Institute of Neuroinformatics, ETH and University of Zurich, Switzerland

## **SERVICE**

- 2014 – present Chair, IT Committee, Department of Psychology, University of Toronto
- 2014 – present Member, MRI Committee, Department of Psychology, University of Toronto
- 2012 – 2014 Member, Committee for the establishment of a graduate minor in Cognitive and Brain Sciences, The Ohio State University
- 2012 – 2014 Member, Executive Committee of the Center for Brain and Cognitive Sciences
- 2012 – 2014 Member, Management Committee of the Center for Cognitive and Behavioral Brain Imaging, The Ohio State University
- 2011 – 2014 Chair, fMRI Technology Committee, Center for Cognitive and Behavioral Brain Imaging, The Ohio State University

**ACADEMIC ACTIVITIES**

- June 2016 Program Chair, 6<sup>th</sup> International Workshop on Pattern Recognition in Neuroimaging, Trento, Italy
- June 2015 Member of the Program Committee, 5<sup>th</sup> International Workshop on Pattern Recognition in Neuroimaging, Stanford, California, USA
- June 2015 Ad-hoc member of the Cognition and Perception study section at the National Institutes of Health, Annapolis, Maryland, USA
- Since 2014 Action Editor, Neural Networks
- June 2014 Member of the Program Committee, 4<sup>th</sup> International Workshop on Pattern Recognition in Neuroimaging, Tübingen, Germany
- June 2013 Member of the Program Committee, 3<sup>rd</sup> International Workshop on Pattern Recognition in Neuroimaging, Philadelphia, PA, USA
- July 2012 Member of the Program Committee, 2<sup>nd</sup> International Workshop on Pattern Recognition in Neuroimaging, London, UK
- March 2008 Organizer, Workshop on “Characterizing and decoding distributed brain representations” at Computational and Systems Neuroscience, Snowbird, Utah
- Dec. 2007 Organizer, Workshop on “Models and mechanisms of visual attention: a critical appraisal” at Neural Information Processing Systems, Whistler, British Columbia
- 2006 – current Author and maintainer of freely available **SaliencyToolbox** software (<http://saliencytoolbox.net>)  
More than 11,000 downloads since 2006, cited in more than 900 papers.
- July 2002 Organizer, Workshop on “Saliency-based visual attention” at the Neuromorphic Engineering Summer School, Telluride, Colorado

## Ad-hoc Reviewing:

Nature Communications; Journal of Neuroscience; Psychological Review; Cerebral Cortex; Neuroimage; Neuropsychologia; Brain Research; Neural Networks; Journal of Vision; Vision Research; Journal of Experimental Psychology: General; Journal of Experimental Psychology: Human Perception and Performance; Attention, Perception & Psychophysics; Frontiers in Perception Science; PLoS One; IEEE Transactions on Pattern Analysis and Machine Intelligence; International Journal of Computer Vision; Computer Vision and Image Understanding; Biological Cybernetics; IEEE Transactions on Image Processing; IEEE Transactions on Multimedia; Pattern Recognition; Multimedia Systems Journal; Journal of Information Science and Technology.

**MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

Society for Neuroscience (SfN)  
Vision Sciences Society (VSS)  
Association for Psychological Science (APS)  
Institute of Electrical and Electronics Engineers (IEEE)  
IEEE Computer Society



**MENTORING****Current trainees**

Heeyoung Choo (postdoc)

Yaelan Jung (Ph.D.)

Claudia Damiano (Ph.D.)

Nicole Telidis (M.A.)

**Student theses**

2015 Claudia Damiano: M.A. in Psychology, University of Toronto

2014 Daniel Berman: M.A. in Psychology, The Ohio State University

2013 Thomas O'Connell: Honors in Psychology, The Ohio State University

2012 Dandan Shen: M.Sc. in Electrical and Computer Engineering, The Ohio State University

2011 Loan Vo: Ph.D. in Electrical and Computer Engineering, University of Illinois at Urbana-Champaign

**Student achievements**

2015 Ann Sheng (undergraduate): Undergraduate Summer Research Award, Department of Physiology, University of Toronto

2015 Ann Sheng (undergraduate): Undergraduate Research Fund, University of Toronto

2014 Andrew Serger (undergraduate): 1st prize at the Denman Undergraduate Research Forum

2013 Amanda Kaczmarek (undergraduate): Social and Behavioral Sciences Research Award

2013 Amanda Kaczmarek (undergraduate): Best Proposed Research Award, Undergraduate Research Colloquium in Neuroscience

2013 Thomas O'Connell (honors): 3<sup>rd</sup> prize at the Denman Undergraduate Research Forum

2012 Dandan Shen (graduate): Best Poster Presentation Award at Cogfest 2012

2012 Thomas O'Connell (honors): Student representative for the Brazil Research Exchange Program to the University of Sao Paulo

2012 Thomas O'Connell (honors): 1st prize at the Denman Undergraduate Research Forum

2012 Thomas O'Connell (honors): Undergraduate Research Opportunity (URO) Summer Fellowship

2011 Thomas O'Connell (honors): Undergraduate Research Scholarship