Lyndon Duong

Contact Info

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New York, NY, USA 10003

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Education

Doctor of Philosophy, Neural Science — Current
New York University, New York, NY, USA
Thesis: Models of statistical adaptation in neural circuits
Advisors: Eero Simoncelli, David Heeger

Master of Science, Physiology and Pharmacology — Jun 2018
University of Western Ontario, London, ON, Canada
Thesis: A normalization circuit of attention in primate lateral prefrontal cortex
Advisor: Julio Martinez-Trujillo

Bachelor of Science, Joint Major in Physiology and Physics — May 2014
McGill University, Montreal, QC, Canada
Dean's Multidisciplinary Undergraduate Research List

Work Experience

Manager, Projects and Operations — Sep 2016 – Jun 2018
Ben Graham Centre for Value Investing, Ivey Business School
- Perform equity valuations and write quarterly reports for endowed investment fund
- Analyze large financial datasets for behavioural finance academic study

Research Experience

Graduate Researcher — Jan 2015 – Jun 2018
Department of Physiology and Pharmacology, University of Western Ontario
Supervisor: Julio Martinez-Trujillo, MD, PhD

Undergraduate Research Assistant — Sep 2013 – May 2014
Department of Physiology, McGill University
Supervisor: Julio Martinez-Trujillo, MD, PhD

Undergraduate Research Assistant — May 2013 – Sep 2014
Department of Physics, McGill University
Supervisor: Walter Reisner, PhD

Teaching Experience

Graduate Teaching Assistant — Sep 2019 – Dec 2019
NEURL-GA.2201 - Mathematical Tools for Neural and Cognitive Science
- Center for Neural Science, New York University

Graduate Teaching Assistant — Sep 2015 – Apr 2016
Physiology 3130z - Physiology Laboratory
- Nominated for Graduate Student Teaching Award
- Department of Physiology and Pharmacology, University of Western Ontario

Activities & Organizations

English Conversation Program Leader — Jan 2015 – Jun 2016
International and Exchange Student Centre, Univ. Western Ontario
- Awarded Certificate of Excellence
- Taught English and North American culture to groups of International students

Head Student Newsletter Editor — Jan 2015 – Jul 2016
Ben Graham Centre for Value Investing
- Led small group in creating & editing biannual investment newsletter

Lyndon Duong — Publications and Presentations

Refereed Journal Publications

1. Gulli, R.A., **Duong, L.**, Corrigan, B.W., Doucet, G.,Williams, S., Fusi, S.,Martinez-Trujillo, J.C. "Flexible coding of memory and space in the primate hippocampus during virtual navigation", Nature Neuroscience vol. 23: 103–112, 2020.

2. Doucet, G., Corrigan, B.W., Gulli, R.A., **Duong, L.**, A., Martinez-Trujillo, J.C. "Modulation of local field potentials and neuronal activity in primate hippocampus during saccades." Hippocampus; 30: 192– 209, 2020.

3. **Duong, L.**, Leavitt, M.L., Pieper, F., Sachs, A., Martinez-Trujillo, J.C. "A normalization circuit in the lateral prefrontal cortex facilitates competitive interactions between neurons during the allocation of attention." eNeuro vol. 6,2 ENEURO.0301-18.2019. 15 Apr. 2019.

4. Klotz, A.R., **Duong, L.**, Mamaev, M., de Haan, H., Chen, J., Reisner, W. "Measuring the confinement free energy and effective width of single polymer chains via single molecule tetris." Macromolecules, 48(13), 4742-4747, 2015.

5. Klotz, A.R., Mamaev, M., **Duong, L.**, de Haan, H., Reisner, W. "Correlated Fluctuations of DNA Between Nanofluidic Entropic Traps." Macromolecules, 48 (14), 5028-5033, 2015.

Presentations

Oral

1. **Duong, L.**, Leavitt, M.L.., Pieper, F., Sachs, A., Martinez-Trujillo, J.C.,"Ensemble coding of spatial working memory and attention in primate lateral prefrontal cortex." Society for Neuroscience. San Diego, CA, USA. November 2018.

2. Martinez-Trujillo, J.C., **Duong, L.**, Abbass, M., Pieper, F., Sachs, A., "Temporal ensemble code of visuospatial attention in primate lateral prefrontal cortex." Society for Neuroscience. Washington D.C., USA. November 2017.

Posters

1. **Duong, L.**, Gulli, R.A., Corrigan, B.W., Leavitt, M.L., Doucet G., Sachs, A., Martinez-Trujillo, J.C. "Lateral prefrontal cortex single neuron and ensemble activity during associative learning in virtually navigating primates." Society for Neuroscience. Washington D.C., USA. November 2017.

2. **Duong, L.**, Abbass, M., Pieper, F., Sachs, A., Martinez-Trujillo, J.C. "Neural network properties are dynamically modulated by attention in primate lateral prefrontal cortex." Society for Neuroscience. San Diego, CA, USA. November 2016.

3. **Duong, L.**, Leavitt, M.L., Pieper, F., Sachs, A., Martinez-Trujillo, J.C. "Construction of neural ensembles for optimal decoding of attention in primate prefrontal cortex." Center for Visual Science Symposium: The Future of Attention. Rochester, NY, USA. May 2016.

4. **Duong, L.**, Pieper, F., Sachs, A., Martinez-Trujillo, J.C. "Effects of neural ensemble size and composition on the decoding of attention in primate lateral prefrontal cortex." Vision Sciences Society. St. Pete Beach, FL, USA. May 2016.

5. **Duong, L.**, Abbass, M., Pieper, F., Sachs, A., Martinez-Trujillo, J.C. "Attention and normalization in area 8a of the primate dorsolateral prefrontal cortex are cell type dependent." Society for Neuroscience. Chicago, IL, USA. October 2015.

6. **Duong, L.**, Tremblay, S., Pieper, F., Martinez-Trujillo, J.C. "Correlation between the effects of attention and response normalization in prefrontal area 8A neurons shows cell type dependence."Vision Sciences Society. St. Pete Beach, FL, USA. May 2015.