Lyndon Duong

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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

Manager, Projects and Operations

Sep 2016 – Jun 2018

EXPERIENCE 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

 $\ensuremath{\mathsf{NEURL\text{-}GA}}\xspace.2201$ - 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

 \bullet Led small group in creating & editing biannual investment new sletter

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

- 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.