

## Eric Stephen Kuebler, Ph.D.

Postdoctoral Associate

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### Education

2021 – Structured Query Language (SQL) Training

2018 – Doctor of Philosophy – Experimental Psychology (University of Ottawa)

2018 – Accepted for Postdoctoral Associate position at Robarts Research Institute (Western University)

2014 – 12<sup>th</sup> Annual Bernstein Course for Computational Neuroscience (Max Planck Institute – Göttingen, Germany)

2014 – Computational Neuroscience Summer School (Centre for Neural Dynamics – University of Ottawa)

2013 – Research Training at the National Research Council of Canada (Department of Translational Bioscience)

2012 – Teachers Assistantship Certification (University of Ottawa)

2012 – Accepted for Doctor of Philosophy in Experimental Psychology (University of Ottawa)

2012 – Bachelor of Arts with Honours – Cum Laude – Majoring in Psychology (Laurentian University)

### Publications

Tauskela, J.S., **Kuebler, E.S.**, Thivierge, J.P., Aylsworth, A., Hewitt, M., Zhao, X., Miekle, J.G., Martina, M. (2021). Resilience of network activity in preconditioned neurons exposed to 'stroke-in-a-dish'. *Neurochemistry International*.

Yuste, R., Hawrylycz, M., ... **Kuebler, E.S.**, ... Lein, E. (2020). Perspective: A community-based transcriptomics classification and nomenclature of neocortical cell types. *Nature Neuroscience*. <https://doi.org/10.1038/s41593-020-0685-8>

Matovic, S., Ichiyama, A., Igarashi, H., Salter, E., Sunstrum, J., Wang, X.F., Henry, M., **Kuebler, E.**, Vernoux, N., Martinez-Trujillo, J., Tremblay, M.-E., & Inoue, W. (2020). Neuronal hypertrophy dampens neuronal intrinsic excitability and stress responsiveness during chronic stress. *The Journal of Physiology*. doi: 10.1113/JP279666

Torres-Gomez, S., Blonde, J.D., Mendoza-Halliday, D., **Kuebler, E.**, Everest, M., Wang, X.J., Inoue, W., Poulter, M.O., & Martinez-Trujillo, J. (2020). Changes in the Proportion of Inhibitory Interneuron Types from Sensory to Executive Areas of the Primate Neocortex: Implications for the Origins of Working Memory Representations. *Cerebral Cortex*. doi: 10.1093/cercor/bhaa056

**Kuebler, E.S.**, Calderini, M., Lambert, P., Thivierge, J.-P. (2019). Optimal Fisher decoding of neural activity near criticality. Springer Special Issue: The Functional Role of Critical Dynamics in Neural Systems. doi: 10.1007/978-3-030-20965-0\_9

**Kuebler, E.S.**, Calderini, M., Longtin, A., Bent, N., Thivierge, J.-P. (2018). Non-monotonic accumulation of spike time variance during membrane potential oscillations. *Biological Cybernetics*. doi: 10.1007/s00422-018-0782-x

**Kuebler, E.S.**, Tauskela, J.S., Aylsworth, A., Zhao, X., Thivierge, J.-P. (2015). Burst predicting neurons survive an in vitro glutamate injury model of cerebral ischemia. *Scientific Reports*. 5, 11718. doi: 10.1038/srep17718

**Kuebler, E.S.**, & Thivierge, J.-P. (2014). Quantifying spiking variability: Theory, measures, and implementation in MATLAB. *Tutorials in Quantitative Methods for Psychology*. doi: 10.20982/tqmp.10.2.p131

**Kuebler, E.S.**, Bonnema, E., McCorriston, J., & Thivierge, J.-P. (2014). Stimulus discrimination in networks of spiking neurons. *Proceedings of the IEEE International Joint Conference on Neural Networks*. doi: 10.1109/IJCNN.2013.6706975

### Scholarships and Fellowships

2014 – 2017 – Canada Graduate Scholarship (D3)

- Awarded by Natural Sciences and Engineering Research Council (NSERC) of Canada to PhD students.
- 21,000\$ / year (x3)

2014 – 2017 – University of Ottawa Excellence Scholarship

- Awarded to students with that have generated external funding.
- Approximately 8500\$ / year (x3)

2013 – University of Ottawa Admission Scholarship

- Offered to students with cumulative GPA is 8.0/10 or above
- Approximately 8500\$ over 12 months

2012 – Joseph-Armand Bombardier Canada Graduate Scholarship

- Awarded to students at the masters level by the Social Sciences and Humanities Research Council (SSHRC) of Canada.
- 17,500\$ over 12 months

2012 – University of Ottawa Excellence Scholarship

- Offered to students with cumulative GPA is 8.0/10 or above and have generated external funding.
- Approximately 8500\$ over 12 months

2011 – Laurentian University Scholarship

- Awarded to students in their second or third year who maintain 80% with full course load through two semesters.
- 1000\$ over once per annum

**Awards**

2018 – Travel Stipend (Federation of European Neuroscience Societies)

- For expenses related to the The Necessity of Cell Types for Brain Function in Copenhagen, Denmark.

2012 – Best Poster Competition (Fund for Interdisciplinary Initiatives)

- Third prize for best poster in computational biology and biomedical informatics poster day.

2011 – Tutor of the Year Finalist Award (Student Services)

- Awarded to tutors that receive the most votes from their tutored peers.

2010 – Bursztyn Family Award (Laurentian University)

- Awarded to students who excel in science and show outstanding drive to learn.
- Chosen by faculty members of the science department.

2010 – Student Award for Tutoring (Student Services)

- Awarded to the student with the most votes from the people they tutor.

**Teaching and Related Experience**

September 2016 - December 2016 - PSY2106 Quantitative Method in Psychology I

- University of Ottawa, Faculty of Social Science, School of Psychology
- Instructor for a class of ~60 students, 3 hours / week.
- Had a teaching assistant helping with labs.

**Talks**

August 2017 – Western University (London, Canada)

- Presented to the lab of Dr. Julio Martinez Trujillo
- Topic was related to thesis work

June 2015 – University of Toronto (Toronto, Canada)

- Presented to the lab of Dr. Frances Skinner.
- Topic: Harnessing neuronal variability: from single neurons to large networks.

May 2015 – University of British Columbia (British Columbia, Canada)

- Presented to the lab of Dr. Nicholas Swindale.
- Topic: Burst predicting neurons survive an *in vitro* glutamate injury model of cerebral ischemia.

September 2014 – Medical Research Council (London, United Kingdom)

- Presented to the lab of Dr. Andreas T. Schaefer.
- Topic: Synchronous and asynchronous coding in networks of spiking neurons.

**Conference Experience**

**Poster Presentations**

November 2021 – Society for Neuroscience (Neuroscience 2021)

November 2019 – Society for Neuroscience (Neuroscience 2019)

April 2019 – London Health Sciences Research Day

April 2019 – Vision Sciences Society

May 2019 – 13<sup>th</sup> Annual Canadian Neuroscience Meeting

October 2018 – The Necessity of Cell Types for Brain Function (Federation of European Neuroscience Societies)

May 2018 – 12<sup>th</sup> Annual Canadian Neuroscience Meeting  
July 2017 – Organization for Computational Neuroscience 2017  
May 2017 – 11<sup>th</sup> Annual Canadian Neuroscience Meeting  
May 2016 – 10<sup>th</sup> Annual Canadian Neuroscience Meeting  
September 2015 – 11<sup>th</sup> Annual Bernstein Conference  
May 2015 – 2015 Annual Canadian Neuroscience Meeting  
January 2015 – 4<sup>th</sup> Poster Day in Computational Biology and Bioinformatics  
November 2014 – Society for Neuroscience 2014  
September 2014 – 10<sup>th</sup> Bernstein Conference 2014  
July 2014 – Organization for Computational Neuroscience 2014  
June 2014 – 7<sup>th</sup> Brain Health Day  
June 2013 – 5<sup>th</sup> Annual Brain Health Research Day  
June 2013 – Canadian Psychological Association's (CPA) 74<sup>th</sup> Annual Convention  
May 2013 – 7<sup>th</sup> Annual Canadian Neuroscience Meeting  
November 2012 – Computational Biology and Biomedical Informatics Student/Postdoc Poster Day

### **Talks**

March 2014 – Quebec Society for the Psychology Research (SQRP)

- Hosted in Montreal, Canada.
- Presented a talk on spiking neuron models of cognition.

June 2013 – Canadian Society for Brain, Behaviour and Cognitive Science (CSBBCS) 22<sup>nd</sup> Annual

- Hosted at the University of Calgary by the CSBBCS.
- Presented a talk on synchrony, asynchrony, and information processing.

### **Review Experience**

February 2015 - Present – Organization for Computational Neuroscience (OCNS)

- Reviewing abstract submitted for the annual meeting.

March 2013 – International Joint Conference on Neural Networks (IJCNN)

- Reviewed articles about neural networks that are pertinent in explaining brain function.

### **Community Service**

May 2013 – 2014 – Space Committee (School of Psychology, Faculty of Social Sciences, University of Ottawa)

- Met to distribute space throughout the Psychology department.
- Created survey to assess the needs to graduate students regarding space.

May 2013 – 2014 – Experimental Representative (Graduate Association Student in Psychology - GASP)

- Student advocate, mediator, managed the 'Buddy system' for first year graduate students.
- Initiated the 'Research Report' newsletter.

September 2012 – May 2013 – First Year Experimental Representative (GASP)

- Voice for the first-year students with concerns or comments about the program.
- Met with the committee once a week to discuss updates.

December 2011 - Student Orientation Leader

- As a member of the Student Welcoming & Activities Team we are responsible for welcoming new and returning students to Georgian College

September 2011 - Volunteer for Orientation Day (Georgian College)

- Large renovation where 5000 new students were introduced.
- Several vendors and a concert was organized.

September 2011-December 2011 - CICE Mentor (Georgian College)

- Community Integration through Co-operative Education (CICE) program.
- Students with intellectual disabilities, brain injuries, mental health issues, and other learning challenges.

September 2010 – December 2011 - Research Consultant (Dr. Trudy Bergere – Georgian College)

- Initiated a forum for students in science courses for questions about course content or research projects.
- Met several students on a regular basis for one hour periods to discuss research.

April 2010 – December 2011 - Tutor and Mentor (Georgian College)

- One-on-one and Liberal Arts Hub tutoring, tutored in psychology, statistics, biology and essay writing.
- Met on a weekly basis for specified number of hours with tutees.
- When mentoring, aided students with learning disabilities (including Schizophrenia, ADHD and Autism) in

adapting to the college/university environment.

*May 2010 - Initiated Mentor Program (Georgian College)*

- Assisted in development of the training program.
- Trained other mentors in using the resources available.
- Learned of different learning disabilities (ADD, ADHD, Schizophrenia, Dyslexia, and Anxiety).

**Recommendations and/or references available upon request**

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