

Janahan Selvanayagam

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Education

2018-2024 **PHD** in Neuroscience, University of Western Ontario
Supervisor: Stefan Everling

2014-2018 **BSc** in Neuroscience, Brock University
Supervisor: Veena D. Dwivedi

Research and Teaching Experience

2025- Departmental Tutor, University of Oxford
Course: Behavioural Neuroscience

2024- Postdoctoral Research Fellow, University of Oxford
Supervisor: Steven Kennerley, Department of Experimental Psychology

2016-2023 Research Assistant, Brain and Language Lab
Supervisor: Veena D. Dwivedi

2019-2021 Teaching Assistant, University of Western Ontario
Course: Physiology & Pharmacology Laboratory (PhysPharm3000E)

2018-2019 Teaching Assistant, University of Western Ontario
Course: Introduction to Neuroscience (Neuroscience 2000)

2017-2018 Teaching Assistant, Brock University
Course: Brain and Language (PSYC 3P65)

2015-2016 Research Assistant, Neurocognitive Research Lab
Supervisor: Dawn Good

Grants, honours & awards

2020-2023	Canadian Graduate Scholarship (Doctoral) Natural Sciences and Engineering Research Council (NSERC) - Federal Grant	\$ 105,000
2020	Ontario Graduate Scholarship OGS - Provincial Grant	declined
2019-2020	Canadian Graduate Scholarship (Masters) Natural Sciences and Engineering Research Council (NSERC) - Federal Grant	\$ 17,500
2019	Ontario Graduate Scholarship OGS - Provincial Grant	declined
2019	Neuroscience Travel Award University of Western Ontario - Internal Grant	\$ 500
2018	Distinguished graduating student - Neuroscience Brock University - Top student in graduating class	
2018	Match of Minds Brock University - Internal Grant	\$ 5,000

Publications & talks

JOURNAL ARTICLES

- 2024 Gilliland, R.L., **Selvanayagam, J.**, Zanini, A., Johnston, K.D., Everling, S. [Neural activity for complex sounds in the marmoset anterior cingulate cortex](#) *Nature Communications Biology*, 7(1), 1310.
- 2024 Wong, R.K., **Selvanayagam, J.**, Johnston, K.D., Everling, S. [Functional Specialization and Distributed Processing across Marmoset Lateral Prefrontal Subregions](#) *Cerebral Cortex*, 34(10), bhac407.
- 2024 Dwivedi, V.D., & **Selvanayagam, J.** [An electrophysiological investigation of referential communication](#) *Brain and Language*, 254, 105438.
- 2024 **Selvanayagam, J.**, Johnston, K.D., & Everling, S. [Laminar Dynamics of Target Selection in the Posterior Parietal Cortex of the Common Marmoset](#). *Journal of Neuroscience*, 44(21), e1583232024.
- 2024 Mendoza-Halliday, D., Major, A.J., ..., **Selvanayagam, J.**, ..., Miller, E.K., & Bastos, A.M. [A ubiquitous spectrolaminar motif of local field potential power across the primate cortex](#) *Nature Neuroscience*, 27, 547-560.
- 2023 Zanini, A., Dureux, A., **Selvanayagam, J.**, & Everling, S. [Ultra-high field fMRI identifies an action-observation network in the common marmoset](#). *Communications Biology*, 6, 553.
- 2023 Dureux, A., Zanini, A., **Selvanayagam, J.**, Menon, R.S., & Everling, S. [Gaze patterns and brain activations in humans and marmosets in the Frith-Happé theory-of-mind animation task](#). *eLife*, 12, e86327.
- 2023 Wong, R. K., **Selvanayagam, J.**, Johnston, K. D., & Everling, S. [Delay-related activity in marmoset prefrontal cortex](#). *Cerebral Cortex*, 33(7), 3523-3537.
- 2021 Gilbert, K.M., Clery, J.C., **Selvanayagam, J.**, ... & Everling, S. [Simultaneous functional MRI of two awake marmosets](#). *Nature Communications*, 12, 6608.
- 2021 Hori, Y., Clery, J.C., **Selvanayagam, J.**, ... & Everling, S. [Interspecies activation correlations reveal functional correspondences between marmoset and human brain areas](#). *Proceedings of the National Academy of Sciences*, 118(37), e2110980118.
- 2021 **Selvanayagam, J.**, Johnston, K. D., Wong, R. K., Schaeffer, D., & Everling, S. [Ketamine disrupts gaze patterns during face viewing in the common marmoset](#). *Journal of Neurophysiology*, 126(1), 330-339.
- 2021 Dwivedi, V. D., & **Selvanayagam, J.** [Effects of Dispositional Affect on the N400: Language Processing and Socially Situated Context](#). *Frontiers in Psychology*, 12, 566894.
- 2020 Schaeffer, D. J., **Selvanayagam, J.**, Johnston, K. D., Menon, R. S., Freiwald, W. A., & Everling, S. [Face selective patches in marmoset frontal cortex](#). *Nature Communications*, 11(1), 4856.
- 2020 Ma, L., **Selvanayagam, J.**, Ghahremani, M., Hayrynen, L. K., Johnston, K. D., & Everling, S. [Single-unit activity in marmoset posterior parietal cortex in a gap saccade task](#). *Journal of Neurophysiology*, 123(3), 896-911.
- 2019 **Selvanayagam, J.**, Johnston, K. D., Schaeffer, D.J., Hayrynen, L.K., & Everling, S. [Functional Localization of the Frontal Eye Fields in the Common Marmoset Using Microstimulation](#). *Journal of Neuroscience*, 39(46), 9197-9206.
- 2019 **Selvanayagam, J.**, Witte, V., Schmidt, L.A., & Dwivedi, V.D. [A preliminary investigation of dispositional affect, the P300, and sentence processing](#). *Brain Research*, 1721, 146309.
- 2018 Dwivedi, V.D., Goertz, K.E., & **Selvanayagam, J.** [Heuristics in Language Comprehension](#). *Journal of Behavioral and Brain Science*, 8(7), 430-446.

TALKS

- 2025, Sep **Selvanayagam, J.** [Neural Representations of Abstract Cognitive Maps in Prefrontal Cortex and Medial Temporal Lobe](#). *Canadian Neuroscience Seminars - Post-Doc Series*, [Virtual].
- 2022, Nov **Selvanayagam, J.**, Johnston, K. D., Everling, S. [Cortical microcircuitry underlying target discrimination in marmoset LIP](#). *Marmoset Bioscience Symposium*, San Diego, USA.
- 2022, Oct **Selvanayagam, J.**, Johnston, K. D., Everling, S. [Cortical microcircuitry underlying target discrimination in marmoset posterior parietal cortex](#). *Mental Health Research Day*, [Virtual].

SELECTED POSTERS

* = Presenting author

- 2026, Mar *Gutierrez, E., **Selvanayagam, J.**, Veselic, S., Muller, T., Butler, J., Behrens, T.E.J., Kennerley, S.W. Grid cells in frontal cortex represent abstract knowledge. *Computational and Systems Neuroscience (COSYNE)*, Lisbon, Portugal.
- 2025, Nov ***Selvanayagam, J.**, Bulter, J., Gutierrez, E., Veselic, S., Behrens, T.E.J., Kennerley, S.W. Neural Representations of Abstract Cognitive Maps in Prefrontal Cortex. *Society for Neuroscience*, San Diego, CA, USA.
- 2023, Nov ***Selvanayagam, J.**, Johnston, K. D., Everling, S. Laminar microcircuitry underlying target selection in marmoset frontal cortex. *Society for Neuroscience*, Washington, DC, USA.
- 2023, May ***Selvanayagam, J.**, Johnston, K. D., Everling, S. Laminar microcircuitry underlying target selection in marmoset posterior parietal cortex. *Canadian Association for Neuroscience*, Montreal, Canada.
- 2023, Nov ***Selvanayagam, J.**, Johnston, K. D., Everling, S. Cortical microcircuitry underlying target discrimination in marmoset LIP. *Society for Neuroscience*, San Diego, USA.
- 2021, Nov ***Selvanayagam, J.**, Johnston, K. D., Everling, S. Cortical microcircuitry underlying target discrimination in the posterior parietal cortex of the common marmoset. *Society for Neuroscience*, [virtual].
- 2021, Nov *Johnston, K. D., **Selvanayagam, J.**, Everling, S. Visual receptive fields in the posterior parietal cortex of the common marmoset. *Society for Neuroscience*, [virtual].
- 2021, Oct ***Selvanayagam, J.**, Johnston, K. D., Wong, R. K., Everling, S. Ketamine disrupts holistic face processing in the common marmoset. *Marmoset Bioscience Symposium*, [virtual].
- 2019, Oct ***Selvanayagam, J.**, Johnston, K. D., Schaeffer, D., Hayrynen, L. K., Everling, S. Functional localization of the frontal eye fields in the common marmoset using microstimulation. *Society for Neuroscience*, Chicago, USA.
- 2019, Apr ***Selvanayagam, J.**, Johnston, K. D., Hayrynen, L. K., Everling, S. Identification of the frontal eye fields in the common marmoset using microstimulation. *Society for the Neural Control of Movement*, Toyama, Japan.
- 2018, May Dwivedi, V.D., ***Selvanayagam, J.** N400 and dispositional affect. *Southern Ontario Neuroscience Association*, Guelph, Canada.
- 2018, Mar ***Selvanayagam, J.**, Witte, V., Schmidt, L., Dwivedi, V.D. P300, dispositional affect and sentence processing. *Cognitive Neuroscience Society*, Boston, USA.
- 2017, May Dwivedi, V. D., Tarkowski, V., ***Selvanayagam, J.** Dispositional affect and sentence processing. *Southern Ontario Neuroscience Association*, St. Catharines, Canada.
- 2017, Feb Dwivedi, V. D., Curtiss, K., ***Selvanayagam, J.** Numerical cognition and the activation of event knowledge. *Lake Ontario Visionary Establishment*, Niagara Falls, Canada.