

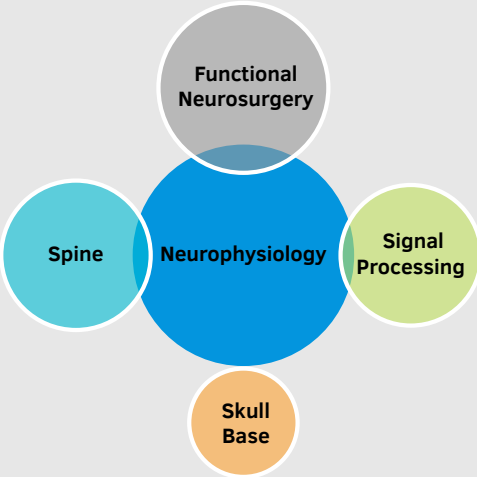


Greydon Gilmore, PhD

Neurophysiologist
Biomedical Engineer

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Technical Skills



- Python • Bash • R • Matlab
- MEPs • SSEPs • EMG • EEG • Cranial
- Alpha Omega • NIM • Cadwell • Natus

Education

2022-2024	Postdoc in Mathmatics	Western University
2017-2022	Ph.D. Biomedical Engineering	Western University
2013-2015	M.Sc. Neuroscience	Western University
2010-2013	B.Sc. Neuroscience	Carleton University

Professional Experience

2025-Present	Intraoperative Neurophysiologist	St. Michael's Hospital	- Spine and cranial neurophysiological monitoring - MEPs, SSEPs, tEMG, EEG, DC mapping, cranial nerve monitoring
2024-Present	Intraoperative Neurophysiologist	Horizon Health Moncton	- External contractor - Neurophysiology support for functional neurosurgical cases
2024-2025	Assistant Professor of Neurosurgery	Emory University	- Directed the Neurophysiology Fellowship Program - Training neurophysiology fellows, Primary research
2024-2025	Intraoperative Neurophysiologist	Emory University Hospital	- Single-unit microelectrode for deep brain stimulation procedures - Targets: STN, GPi, VIM, CM, pulvinar, ANT, cZi, ALIC, and PAG
2015-2024	Intraoperative Neurophysiologist	London Health Sciences Centre	- Single-unit microelectrode, LFP, and EEG/iEEG recordings - Targets: STN, GPi, VIM, CM, pulvinar, ANT, and cZi

Research & Innovation

2022-present	Developer	neurophys software solutions Ltd	- Develop open-source software supporting clinical and research applications in neurosurgery - Developed trajectoryGuide, an open-source software for planning stereotactic electrode trajectories - Developed data2bids, a platform for anonymizing and organizing EEG/iEEG recordings and medical imaging data
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Honors & Awards

2022-2024	Mitacs Elevate Postdoctoral Fellowship	Western University	Amount: \$60,000 CAD/yr
2020-2022	Graduate Student Award	Parkinson's Society of Canada	Amount: \$20,000 CAD/yr

Publications

45 publications (7 first-author) | h-index: 16

- Daniela Herrera-Chaves, **Gilmore, G.** *et al.* (2026). The Role of Modality-specific Brain Regions in Statistical Learning: Insights from Intracranial Neural Entrainment. In *Journal of Cognitive Neuroscience*.
- Arun Thurairajah, **Gilmore, G.**, *et al.* (2026). Stereoelectroencephalography accuracy in a series of over 3000 trajectories. In *medRxiv*.
- Alaa Taha, **Gilmore, G.**, *et al.* (2023). Magnetic resonance imaging datasets with anatomical fiducials for quality control and registration. In *Scientific Data*.
- Gilmore, G.** *et al.* (2019). Zona incerta deep-brain stimulation in orthostatic tremor: efficacy and mechanism of improvement. In *Journal of Neurology*.
- Gilmore, G.** *et al.* (2019). Forward and backward walking in Parkinson disease: A factor analysis. In *Gait & Posture*.