

**Postdoctoral Research Fellow Position**

**Western University, London, ON, Canada**

**Joint supervision by Dr. Shawn Whitehead (Vulnerable Brain Lab) and Dr. Manuel Montero-Odasso (Gait and Brain Lab)**

The Vulnerable Brain Lab ([www.vulnerablebrain.com](http://www.vulnerablebrain.com)) and the Gait and Brain Lab (<https://gaitandbrain.com>) at Western University, London, ON, Canada are seeking a highly motivated Postdoctoral Research Fellow for an exciting collaborative project. This position offers the unique opportunity to work under the joint supervision of Dr. Shawn Whitehead and Dr. Manuel Montero-Odasso, combining expertise in neuropathology and neurodegenerative disorders with clinical assessment of cognition and mobility in aging populations. Preference will be given to candidates who have completed a PhD within the past 2 years.

Western University is a leading research-intensive institution in Canada with exceptional strengths in neuroscience research. The university is home to the Western Institute for Neuroscience (WIN), an interdisciplinary hub that brings together over 100 principal investigators and their teams to address the most pressing challenges in brain health and disease. Postdoctoral fellows benefit from access to state-of-the-art facilities, including the Centre for Functional and Metabolic Mapping (CFMM), which houses Canada's premier collection of ultra-high-field MRI systems dedicated to research, featuring 3T, 7T, and 9.4T scanners. Additionally, Western's strong clinical partnerships provide access to patient populations and clinical expertise relevant to neurodegenerative research.

The research project will focus on evaluating the utility of circulating microglial extracellular vesicles as discriminators and predictors of white matter hyperintensity burden and cognitive impairment in patients with mild cognitive impairment and Alzheimer's disease. This cutting-edge work aims to establish novel blood-based biomarkers that could provide insights into disease progression and potential therapeutic targets, bridging cellular mechanisms with neuroimaging and clinical measures of cognitive decline. The successful candidate will be responsible for measuring extracellular vesicles using nanoflow cytometry and other molecular-based techniques, performing MRI data analysis with particular emphasis on white matter segmentation methodologies, and correlating these findings with comprehensive cognitive assessments. The position requires a PhD in biomedical sciences with a strong background in Neuroscience. Experience in measuring fluid biomarkers and MRI analysis is highly desirable. Additional experience with extracellular vesicle isolation and characterization would be an asset, as would familiarity with cognitive assessment in aging populations.

The postdoctoral fellow will work as part of a dynamic interdisciplinary team spanning both laboratories and will have opportunities to collaborate with researchers across the Western Institute for

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[www.vulnerablebrain.com](http://www.vulnerablebrain.com)

Neuroscience ecosystem. Additionally, there will be opportunities to mentor junior lab members, develop funding proposals, and develop team-leading skills.

Please feel free to contact Dr. Whitehead ([shawn.whitehead@schulich.uwo.ca](mailto:shawn.whitehead@schulich.uwo.ca)) or Dr. Montero-Odasso ([Manuel.MonteroOdasso@sjhc.london.on.ca](mailto:Manuel.MonteroOdasso@sjhc.london.on.ca)) if you have any inquiries. Applications should be submitted to Dr. Whitehead. To apply, please send a detailed CV and cover letter explaining your interest in this research and how your skills and experience are suitable for this position. The cover letter should include a narrative explanation of potential objectives you hope to achieve during the fellowship based on the research focus outlined above. The position will initially be for up to two years with a competitive salary commensurate with experience. The position is expected to commence in September 2025, or at a mutually agreed upon date.

*Western Values Diversity*

The University invites applications from all qualified individuals. Western is committed to employment equity and diversity in the workplace and welcomes applications from women, members of racialized groups/visible minorities, Indigenous persons, persons with disabilities, persons of any sexual orientation, and persons of any gender identity or gender expression. Accommodations are available for applicants with disabilities throughout the recruitment process.