

CURRENT RESEARCH OPPORTUNITIES

Graduate Program: Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Medical Biophysics, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, **Neuroscience**, Surgery

Research Cluster(s): Music neuroscience, motor systems, auditory systems

Supervisor(s): Dr. Jessica Grahn

Keywords: Music, rhythm, fMRI, tDCS, Parkinson's disease

Vacancies: 3

MSc/PhD or Postdoc Available?: PhD (4 years)

Description: I will consider MSc, PhD, and postdoctoral applications, on topics related to rhythm, music, and neuroscience (to see what we do, visit www.jessicagrahn.com). In general, projects tend to include some combination of behavioural studies, gait (some with Parkinson's patients), neuroimaging, EEG, tDCS/tACS brain stimulation, and cross-species work. We examine the fundamentals of behavioural rhythm perception, neural mechanisms of rhythm and beat perception, the effect of music on movement, music and memory, and more. Graduate students should apply by December/early Jan to ensure consideration.

To Apply: Applicants must independently apply to the program using the online Western [application portal](#), **including a clear reference to the supervisor**

Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Grahn directly: jgrahn@uwo.ca

CURRENT RESEARCH OPPORTUNITIES

Graduate Program: Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Medical Biophysics, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, **Neuroscience**, Surgery

Research Cluster(s):

Supervisor(s): Dr. Sue Peters

Keywords: Gait, sensorimotor mechanisms, rehabilitation

Vacancies: 1

MSc/PhD or Postdoc Available?: PhD (4 years)

Description: The objective of this project is to uncover fundamental neural mechanisms that underpin naturalistic locomotion in humans, with manipulations to posture and 1) somatosensation and 2) motor performance. We are looking to work with students with experience in neuroimaging, and/or gait kinematics, with an interest in exploring neural activation that links with behavioural elements that underpin locomotion in humans.

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Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Peters directly: speter49@uwo.ca

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Graduate Program: Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Medical Biophysics, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, **Neuroscience**, Surgery

Research Cluster(s):

Supervisor(s): Dr. Paul Gribble

Keywords: human; motor control; motor learning; somatosensory; computational models

Vacancies: 2

MSc/PhD or Postdoc Available?: MSc/PhD (4 years)

Description: I am recruiting MSc and PhD graduate students interested in studying the neural control of human voluntary movement. In my lab we study basic scientific questions about human sensory and motor systems. We study how the brain controls voluntary movement, and how plasticity in sensory and motor brain areas supports motor learning. We use human empirical studies of upper limb movement and motor learning. Techniques include kinematics, EMG, robot forces, EEG, fMRI, TMS, SEPs. We also use computational models of the upper limb neuromuscular system, controlled using recurrent neural networks.

To Apply: Applicants must independently apply to the program using the online Western [application portal](#), **including a clear reference to the supervisor**

Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Gribble directly: pgribble@uwo.ca

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Research Cluster(s):

Supervisor(s): Dr. Jody Culham

Keywords: Cognitive neuroscience, vision, real world, virtual reality, video games

Vacancies: 2

MSc/PhD or Postdoc Available?: MSc (2 years), PhD (4 years)

Description: The CulhamARI Lab investigates how vision is used for perception, cognition, and the control of actions in the real world. Research focuses on new paradigms that move cognitive neuroscience research closer to the real world. Recent projects use virtual reality and video games to simulate how features of the real world like 3D vision and active control of one's environment affect brain and behavior.

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Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Culham directly: jculham@uwo.ca

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Graduate Program: Anatomy & Cell Biology, Biochemistry, Epidemiology and Biostatistics, Family Medicine, Medical Biophysics, Microbiology & Immunology, Pathology & Lab Medicine, Physiology & Pharmacology, **Neuroscience**, Surgery

Research Cluster(s): Psychology (Cognitive, Developmental and Brain Sciences)

Supervisor(s): Dr. Laura Batterink

Keywords: language learning, memory, sleep-dependent memory consolidation, EEG

Vacancies: 1

MSc/PhD or Postdoc Available?: MSc (2 years), PhD (4 years)

Description: Research in our lab focuses on understanding how implicit and explicit memory mechanisms, occurring during both wake and sleep, contribute to different aspects of language learning. Our research leverages EEG, event-related potentials (ERPs), polysomnography, and other neuroimaging methods.a

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Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Batterink directly: lbatter@uwo.ca

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Research Cluster(s): Cognitive & Developmental Brain Sciences

Supervisor(s): Dr. Morgan Gustison

Keywords: social behavior, communication, neuroethology, behavioral neuroscience, rodent models

Vacancies: 2

MSc/PhD or Postdoc Available?: MSc/PhD (2 year duration)

Description: Our lab has open positions for graduate students interested in the neurobiology and evolution of social behavior. Core projects involve investigations into neural substrates that regulate how individuals communicate when they form and maintain social relationships. Our primary study species is the prairie vole, a monogamous rodent. Females and males develop long-term relationships, or pair bonds, and raise offspring together. We are looking to work with students who have experience with animal research. Please contact Dr. Gustison directly for more details.

To Apply: Applicants must independently apply to the program using the online Western [application portal](#), **including a clear reference to the supervisor**

Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Gustison directly: mgustiso@uwo.ca

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Research Cluster(s):

Supervisor(s): Dr. Jörn Diedrichsen

Keywords: MRI analysis, normative modelling, human cerebellum

Vacancies: 1

MSc/PhD or Postdoc Available?: PhD (3 year duration)

Description: The Diedrichsen Lab is looking to recruit a new postdoctoral associate for a large collaborative project on the anatomical development of the human cerebellum. The overall goal of the project is to develop a high-resolution normative model of human cerebellar development across the entire life span. The successful candidate is expected to work in a team with colleagues at Erasmus Medical Center, the Donders Institute (Netherlands), McGill, Dalhousie, Sick Kids, and UBC (Canada). For full application details, see: https://www.diedrichsenlab.org/open_postdoc_raynor

To Apply: Applicants must independently apply to the program using the online Western [application portal](#), **including a clear reference to the supervisor**

Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Diedrichsen directly: jdiedric@uwo.ca

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Research Cluster(s):

Supervisor(s): Dr. Brian Corneil

Keywords: Brain; systems neuroscience; movement; brain stimulation; animal model

Vacancies: 3

MSc/PhD or Postdoc Available?: MSc or PhD (4 year duration)

Description: Opportunities are available for new graduate students (MSc or PhD) or PDFs with an interest in systems neuroscience. Trainees will work on two CIHR funded projects. One project investigates the neurophysiology of rapid visually-guided actions, building on a stream of research detailing the profile of upper limb muscle recruitment. The other project investigates a new non-invasive form of brain stimulation, temporal interference stimulation. Both projects involve recording and/or manipulating neural activity in cortical and subcortical areas. See <https://www.corneil-lab.com> for more details.

To Apply: Applicants must independently apply to the program using the online Western [application portal](#), **including a clear reference to the supervisor**

Application Deadline: None at this time

Contact Information: Questions regarding the application process, or inquiries about the program may be addressed to the [Academic Programs Coordinator](#), for more information about the description/design of the project, you may contact Dr. Corneil directly: bcorneil@uwo.ca