UNIVERSITY of GUELPH

ONTARIO VETERINARY COLLEGE

DEPARTMENT OF BIOMEDICAL SCIENCES

- **Are you interested in exploring brain circuits and gene expression networks?**
- **Do you want to determine the roles astrocytes play in neuronal plasticity?**
- **The Descalzi lab is looking for a PhD student to join their team at the University of Guelph!**

Job Title: PhD Student

Position Location: University of Guelph, Guelph, Ontario, onsite

About Us: Our research bridges behavioural neuroscience with molecular biology and systems neuroscience to investigate gene expression networks and the molecular and cellular mechanisms within the brain that promote the development of chronic pain and comorbid anxiodepressive states. Areas of research include:

- The intersection of pain and emotion
- Pain induced dysregulation of brain circuits and gene function
- Astrocyte-neuronal coupling in chronic pain

About The Role: Dr. Giannina Descalzi is seeking a PhD student who wishes to investigate molecular mechanisms promoting chronic pain and anxiodepressive behaviours in mice. In this role, you will have the opportunity to participate in and lead studies using a variety of techniques including: in-vivo calcium imaging and optogenetics; behavioural paradigms; molecular biology, including recombinant DNA to engineer constructs for viral mediated gene transfer; and, chemo-genetics.

Your Key Responsibilities Will Include:

- Working independently as well as part of an interdisciplinary team.
- Designing your project with the support of Dr. Descalzi.
- Data analyses, record keeping, and communication of results.
- Instruction and support for undergraduate-level students in the lab.
- Establishing yourself as an innovator through impactful publications

What You'll Bring To The Role:

• BSc/MSc in neuroscience or related field. Students in the last year of their degree are encouraged to apply.

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• A strong independent thinker with a focus on discovery and problem-solving, and a passion for fundamental neuroscience research.
• Hands-on experience in one or more of the following is a plus:
- immunohistochemistry; rodent behavioural testing; rodent stereotaxic surgery; in-vivo calcium imaging
• Excellent analytical and organizational skills for conducting research of the highest quality and a keen learner's attitude.

How To Apply: Interested applicants should submit the following materials (preferably as a single PDF file): (1) a cover letter; (2) a curriculum vitae; (3) transcripts, and (4) the names and email addresses of 2 scientific/academic referees. Applications should be sent to the attention of:

Giannina Descalzi
Associate Professor
Department of Biomedical Sciences
University of Guelph
Guelph, ON N1G 2W1
gdescalz@uoguelph.ca

All qualified applicants are encouraged to apply; however, Canadians and permanent residents will be given priority.

The University of Guelph resides on the ancestral lands of the Attawandaron people, and the treaty lands and territory of the Mississaugas of the Credit First Nation, and we offer our respect to our Anishinaabe, Haudenosaunee and Métis neighbours as we strive to strengthen our relationships with them.

At the University of Guelph, fostering a culture of inclusion (https://uoguel.ph/ox2p9) is an institutional imperative. The University invites and encourages applications from all qualified individuals, including from groups that are traditionally underrepresented in employment, who may contribute to further diversification of our Institution.