

September 8th, 2026

Funded four-year PhD opportunity

Overall topic: Pain and welfare during the dry-off transition in dairy cows

The Trindade Lab is recruiting a PhD student to work on pain measurement during the transition from lactation to the dry period in dairy cows. The student will compare milk cessation strategies and develop an automated pain detection system from on-farm sensor data, combining behavioral assessment, physiological biomarkers, and machine learning.

This is a great opportunity for someone who wants to develop or refine hands-on skills in large animal handling, specimen collection (e.g., blood, hair, and other samples), bench laboratory assays (e.g., ELISA), behavioral evaluation (e.g., manual scoring and sensor-based data), and machine-learning coding. The successful candidate will be trained to work across all of these areas.

The successful candidate will lead the project with support from other Trindade Lab members and collaborators. In addition to completing required coursework, research activities within this PhD will include literature review, participatory engagement research, data management and analysis, manuscript preparation, and presentation of research findings at scientific meetings.

The candidate will be based in the Comparative Medicine and Integrative Biology (CMIB) Graduate Program, in the College of Veterinary Medicine (CVM) at Michigan State University (MSU) in East Lansing, Michigan, USA. This is an in-person position.



**College of
Veterinary
Medicine**

Department of
Large Animal
Clinical Sciences

Veterinary
Medical Center
736 Wilson Road
Room D202
East Lansing, MI
48824-1314

517.355.9593
Fax: 517.432.1042

The ideal candidate qualifications:

- Bachelor's degree in Animal Science, Veterinary Medicine, Agronomy, or a related field.
- Master's degree in a relevant discipline for the project, such as Dairy Science, Animal Welfare/Applied Ethology, Pain Assessment, Precision Livestock Farming, Machine Learning, or a related area.
- Background in handling dairy cattle or other large animals is desirable.
- Familiarity with laboratory bench work or basic laboratory procedures is a plus.
- Some exposure to statistics or programming (e.g., R or Python) is helpful but not required.
- Excellent scientific analytical and writing skills.
- Strong communication and interpersonal skills.
- Ability and enthusiasm to work collaboratively as part of a team.
- Proactivity, independence, initiative, and excellent time management skills.
- A US driver's license or the ability and willingness to obtain one.
- International applicants are welcome but must demonstrate English proficiency (review CMIB Graduate Program specifications).

Funding:

The successful candidate will be funded for four years (Year 1-Year 4). The total estimated stipend is \$141,700 over four years, with an annual stipend of approximately \$35,000-\$36,000 USD, subject to annual adjustments. Full tuition coverage, health insurance, and applicable fringe benefits will also be provided. These amounts are estimates, and the final funding package and annual stipend will be confirmed at the time of appointment.

Application process and timeline:

1. Initial application: Please complete the application form (link below), which asks about your background and interests, and upload the following materials: (i) one-page cover letter describing your research background, interests, and alignment with this PhD opportunity; (ii) current CV; (iii) contact information for three professional references, including name, current affiliation, relationship to the candidate, email address, and phone number. Review of applications will begin on September 25th, 2026, and will continue on a rolling basis until the position is filled.

Application form: https://msu.co1.qualtrics.com/jfe/form/SV_bPMNt9alt3s98zQ

2. Informal interview: Selected applicants will be invited to an informal online interview with Dr. Trindade to discuss research interests and program fit.

3. Graduate program application: The finalist candidate will then be required to complete the formal application and admission process for the CMIB Graduate Program at MSU's CVM, which includes an additional evaluation and interview before final admission. Please review the CMIB Program admission requirements and application process for additional information using the links below.

<https://cvm.msu.edu/future-students/graduate-programs/cmib/admission>

<https://cvm.msu.edu/future-students/graduate-programs/cmib/admission/application-process>

4. Admission and start date: Anticipated start in spring or summer, or fall 2027. The start date is flexible, but January 19th, 2027, is preferred.

If you have questions, please email Dr. Pedro Henrique Esteves Trindade (trinidad4@msu.edu).

See more about the Trindade Lab at MSU:

<https://www.youtube.com/watch?v=LNVEar7mJGI>