

Position: Post-doctoral fellow position in Precision Livestock Farming and Animal Behaviour**Project: Automated Behaviour Tracking to Improve Sow Welfare in Free Farrowing Systems****Location:** Department of Animal Science, University of Manitoba – Winnipeg, Manitoba, Canada**Start date:** Flexible, any time fall of 2026 or early 2027**Duration:** up to 15 months, end date of Dec 31, 2027**Application deadline:** Applications will be reviewed as received until the position is filled**Project Summary**

Gestating sows are commonly housed in individual stalls, with farrowing occurring in crates. However, societal and regulatory pressures are driving improvements in animal welfare standards. For instance, the Canadian welfare legislation mandates the implementation of group gestation by 2029, and major production centers are moving towards free farrowing systems. However, higher pre-weaning piglet mortality rates pose a significant challenge in these systems compared to farrowing crates, partly due to poor sow mothering ability traits. Identifying and quantifying such traits is essential for the success of free-farrowing systems.

In this collaborative project, the post-doctoral fellow will work with a MSc student to develop computer vision models to automatically classify sow behaviours, enabling the tracking and calculation of behaviour-based phenotypic traits. The project will involve detailed descriptions of favourable sow perinatal behaviours obtained through extensive video annotation. This data will be used to identify sows with the best mothering abilities in a free farrowing environment, ultimately aiming to increase sow reproductive performance.

Candidate Profile

- A PhD in Animal Science, Biosystems Engineering, Computer Science, or a closely related field
- Interest/experience in animal welfare and behaviour
- Interest/experience in machine learning models
- Excellent communication skills in English, both written and oral, are essential

Application Instructions

Interested candidates are asked to send **a cover letter**, **a CV**, and **academic transcripts** via email with copies to Dr. King (Meagan.King@umanitoba.ca), Dr. Nyachoti (Martin.Nyachoti@umanitoba.ca), and Dr. Dallago (Gabriel.Dallago@umanitoba.ca). We thank all candidates for their applications; however, only those selected for an interview will be contacted. Application materials will be handled in accordance with the privacy protection provisions of “The Freedom of Information and Protection of Privacy Act” (Manitoba).

If you require accommodation support during recruitment, do not hesitate to reach out. We are committed to the principles of equity, diversity & inclusion and to promoting opportunities for systemically marginalized groups who have been excluded from full participation at the University and the larger community, including Indigenous Peoples, women, racialized persons, persons with disabilities and those who identify as 2SLGBTQIA+ (Two Spirit, lesbian, gay, bisexual, trans, questioning, intersex, asexual and other diverse sexual identities).