

Job Title: Ergonomics Laboratory Research Assistant for the project: *Preventing Shoulder Disorders in Bovine Veterinary Practice: Development and Preliminary Evaluation of Safety Interventions*

Department: Canadian Center for Health and Safety in Agriculture

Masters Student Stipend: \$20,000 per year (pending grant funding)

Project Overview: Veterinarians have a substantial scope of practice, and those involved in large animal care play a vital part in food animal production and the economy of Saskatchewan. Veterinary medicine can expose practitioners to many hazards: zoonotic infection, psychosocial stress, noise, radiation, acute traumatic injury, and especially musculoskeletal disorders (MSD). MSD are particularly problematic, impeding work activities in 75% of large animal veterinary practitioners over a 12-month period and leading to work absence in 24%.

There seems to be consistent (if anecdotal) evidence that MSD is related to physical exposures associated with the large animal veterinary practice, particularly rectal exams. However, no ergonomic exposure assessments could be found which employ objective or detailed investigations of the nature of these physical exposures. Ergonomic exposure assessment is vital; not only does it investigate the likely mechanisms of MSD, but it quantifies exposure to risk factors and facilitates the development of appropriate intervention strategies. Despite identifying over 30 studies on the health of veterinarians, there are no known detailed exposure assessments or intervention evaluations.

The proposed study will address the following research objectives:

- 1) Expanding on current pilot work evaluating the exposure to risk factors during veterinary tasks, the team will develop a set of intervention avenues anticipated to have a positive impact on working exposure
- 2) Changes in tools, task set-up, and technique will be evaluated using objective, electronic ergonomic assessment methods.
- 3) Interventions shown to have promise and probable adherence will be combined into an 'intervention package' which will form the basis of an educational module intended for use with veterinary trainees.

Student's role: This position is ideal for a student with prior training in human anatomy, biomechanics, kinesiology, or medicine. However, training is available for a student with a passion to learn. The student will be involved in ergonomic exposure assessment: developing protocols, recruitment, data collection, and data processing and analysis. It is anticipated that a portion of the main project would be selected and adapted to form the basis of an MSc thesis, with the student presenting at conferences and leading the writing of journal articles.

Training Environment: The Ergonomics Lab is housed within the Canadian Center for Health and Safety in Agriculture, a multi-disciplinary type B centre located within the College of Medicine at the University of Saskatchewan. Further information about our current research directions can be found on the following websites: <http://research-groups.usask.ca/ergolab>

Applicants should submit, via email attachment, their cover letter and curriculum vitae to:

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