



## UNIVERSITY OF CALGARY

### Graduate Student in Beef Cattle Lameness Faculty of Veterinary Medicine, University of Calgary

The Department of Production Animal Health of the Faculty of Veterinary Medicine in collaboration with partners, is seeking a graduate student (MSc or PhD) with interest in the beef cattle industry for a project on studying infectious foot lesions.

#### Project description:

Lameness is the second most treated condition in beef cattle after bovine respiratory disease and affects animal health, production and welfare. Claw lesions are responsible for 70-90% of the lameness cases in beef cattle, where they can be infectious (foot rot, digital dermatitis, heel horn erosion) or non-infectious (sole and toe ulcer, sole hemorrhage, white line disease). Foot rot (FR) is a well-known infection of the subcutaneous tissue, resulting in acute lameness and thought to be caused by *Fusobacterium necrophorum*. Management of this disease generally involves the use of antimicrobials. However, reports from the field suggest that there is an increasing treatment failure rate, which may be partly explained by confusion differentiating FR from digital dermatitis (DD) or coinfections with DD. Even well-managed feedlots struggle from time to time to control this “well-known” disease, raising the question as to whether the pathophysiology is really understood. Therefore, we are aiming to identify bacterial species from skin biopsies, using culture and sequencing techniques allowing for metagenomic characterization and evaluation of associations of bacterial communities in the different infectious foot lesions.

#### What are we looking for:

Applicants with a DVM degree or degree in animal science or a related field will be considered. The preferred candidate needs to be a good team player with excellent communication skills, both within the academic as well as the non-academic setting. Ability to work independently with good communication (oral and written) skills in English is needed. Experience with beef cattle handling and basic knowledge on hoof health and the industry is essential or the ability and interest to learn. Expertise with molecular diagnostics is essential to this project. This graduate student position will provide the candidate of choice with strong skills in epidemiology and molecular technologies. Graduate stipend will be guaranteed at a minimum of 22k (MSc) and 23k (PhD). The graduate student will be part of a vibrant graduate student community under the supervision of several principal investigators collaborating to ensure the best learning opportunities.

UCVM is a dynamic veterinary faculty in Western Canada that is committed to strengthen the connections between animal health, public health, and the environment. UCVM faculty works across disciplines and Departments, fostering collaborative research, teaching and service. Descriptions of the Faculty and its departments can be found on the UCVM website ([www.vet.ucalgary.ca](http://www.vet.ucalgary.ca)). Calgary is a vibrant, multicultural city and located near the Rocky Mountains, Banff National Park and Lake Louise and offers an enormous opportunity for outdoor activities both in winter and summer.

For additional information please contact Dr. Karin Orsel ([Karin.orsel@ucalgary.ca](mailto:Karin.orsel@ucalgary.ca)). Review of applications will start immediately. Interested individuals should submit a current curriculum vitae and an outline of research interests and relevant experiences along with the names of three referees to:

Dr. Karin Orsel

[karin.orsel@ucalgary.ca](mailto:karin.orsel@ucalgary.ca)

<http://wcm.ucalgary.ca/orselresearch/>