Message from Dr. Renate Weller  
Dean and Professor, UCVM

2022 brought many successes and accomplishments for UCVM. On behalf of myself, faculty, staff and students at the University of Calgary Faculty of Veterinary Medicine (UCVM), we are immeasurably grateful for the generosity that made these research, employment and purchases possible.

Our vision continues to be bringing innovation and community together to advance animal, human and environmental health. Through your giving to UCVM, you have sparked meaningful change.

As we get set to double our cohort in 2025, we are excited to continue and expand the teaching and research initiatives that have made UCVM known provincially and internationally. With a focus on supporting emerging scholars and continuing to support tomorrow’s veterinarians, I know that 2023 will be just as exciting.

I hope that I get an opportunity to connect with each one of you along the way. We would be very happy to welcome you for a tour of our facilities if this would be of interest to you.

Best,  
Dr. Renate Weller  
Dean and Professor, UCVM

Message from Dr. Ashley Whitehead  
Associate Dean, Clinical Affairs

In 2022, the University of Calgary Faculty of Veterinary Medicine’s (UCVM) Animal Health Funds continued to build momentum. We had the largest funding call, in our history, with 10 projects in all species areas benefiting from the generous donations of our community.

This report demonstrates that the Animal Health Funds have supported research, clinical, diagnostic and educational activities within UCVM as well as supporting our faculty’s clinical practice in our Distributed Veterinary Learning Community (DVLC), thus directly benefiting Alberta animals and their owners.

We are especially proud of the three students who were supported by the Animal Health Fund grants to assist faculty in clinical research during the summer months. This year, continue to keep an eye out for UCVM faculty and students in your populace. As a community focused faculty, we are developing solutions for our province’s animal issues. This includes everything from cattle respiratory viruses to equine lameness evaluation, to understanding pain in dogs.

Thank you for advancing human and animal health through your support of UCVM’s Animal Health Funds.

Dr. Ashley Whitehead  
Associate Dean, Clinical Affairs  
Associate Professor (Teaching), Equine Clinical Sciences

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**Read** how UCVM’s Dean recently received the Alberta’s Queen Elizabeth II’s Platinum Jubilee Medal.

**Learn more** about Dr. Whitehead.  
She has been on faculty at UCVM since 2010 and teaches across the curriculum in a wide variety of courses including Equine Medicine & Surgery, Clinical Skills, Clinical Presentations and Professional Skills.
Horses play an integral role in our community as working, performance and companion animals. Your support of the Equine Health Fund at the University of Calgary Faculty of Veterinary Medicine is making a tremendous difference to advancing equine health in Alberta. Thanks to your contribution, UCVM was able to make many strides, including the purchase of Inertial Sensor Kits.

1. Firstly, they will be used throughout the lameness rotation for the UCVM students. Lameness is an abnormal gait or stance of an animal that is the result of dysfunction of the locomotor system. This will supply students with immediate quantitative feedback about the degree of lameness in a horse that can be observed under different conditions. This includes a straight-line, an in-hand trot or during circular movement. This ultimately helps students with improving their visual lameness scoring skills by providing immediate, objective and quantitative feedback to which they can compare their subjective opinion.

2. Secondly, the sensor kits are providing opportunities for field based applied research. For example, in collaboration with Spruce Meadows based farrier Connor Sloman, we are using the sensors to evaluate the immediate effect of shoeing with respect to movement symmetry by allowing quantitative measurements with minimal overhead, so measurements can be integrated into routine farriery practices.

3. Thirdly, the kits were and will continue to be used in hands on teaching sessions with undergraduate kinesiology students in lectures. This highlights the importance of the biomechanical principles that are taught about muscles and gives many undergraduate students a first taste of doing measurements of gait parameters under real life conditions.

4. Lastly, the kits were used in a sensor-based gait analysis at a recent farrier-vet conference (NAEP in Saratoga Springs, New York). With both farriers and vets together, we were able to measure the response of horses to different shoeing applications, such as wedges or added padding.

These kits will continue to make a difference in our research and teaching capabilities at UCVM. Thank you.
Your gracious generosity also enabled UVCM to:

1. **Facilitate endotoxin activity research**
   - With the help of the Equine Health Fund, Dr. Marie-France Roy is trying to validate the use of an endotoxin activity during an examination for detecting infection in horses caused by Gram-negative bacteria.
   - This test would allow rapid detection (within one hour) of Gram-negative infections, therefore helping clinicians select the appropriate drugs to treat horses with infection.
   - This project will continue into the summer.

2. **Improved parasitic worm research**
   - Support from the Equine Health Fund has allowed for improved diagnostic testing for parasitic worm infections and to more efficiently detect highly pathogenic species in domestic horses.
   - Dr. Jocelyn Poissant’s research will inform parasite control strategies and have significant benefits for horse health and welfare.

3. **Hire summer student**
   - Support from the Equine Health Fund has allowed for hiring of incoming 3rd year DVM student Lauren Stroffregen. Lauren had a busy summer working on clinical research projects related to Potomac Horse Fever and Equine Protozoal Myeloencephalopathy in Alberta horses. She also worked on an educational research project that will help improve veterinary students learning how to pass a nasogastric tube in horses using an anatomically correct simulator.

4. **Execute EPM prevalence research**
   - The overall aim was to estimate the prevalence of Equine Protozoal Myeloencephalopathy (EPM) in horses in Alberta.
   - EPM is a disease that affects the central nervous system of horses. It is often a progressively debilitating disease and can affect any part of the nervous system, from the front of the cerebrum to the end of the spinal cord.
   - The additional funding provided allowed us to test more representative samples, which further strengthened our sample size. Drs. Whitehead and Galezowski are investigating the two causative agents of EPM, Sarcocystis neurona and Neospora hughesi in the Alberta horse population.
   - The preliminary results revealed a higher-than-expected population of both S. neurona and N. hughesi.
   - Alberta is not part of the normal geographic range of the opossum species Didelphis virginiana, which is the animal species that transmits the protozoa to horses, and historically, has a low rate of clinical EPM.
   - Our initial hypothesis was made using seroprevalence data from previous studies from states that have low case numbers of EPM and are not part of the normal geographic range of the opossum, which all had a lower seroprevalence rate. This is critical knowledge as equine veterinarians in Alberta may not be including EPM as a differential diagnosis for neurologic horses.
UCVM has a Distributed Veterinary Learning Community (DVLC) – this unique teaching and learning model embeds faculty and students directly in the community in order to:

- **Identify real needs** with respect to clinical research in Alberta animals
- **Relay scientific discoveries** directly to animal owners and community clinics
- **Enhance clinical skills** teaching curriculum, as instructors draw from real life experiences
- **Equip students** for the reality of clinical practice

**More about horses!**

Study explores the promising but still puzzling field of stem cell therapy for painful joint injuries

Learn more

**Contact us to learn more:**

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