

CAHF *Wish* LIST

When CAHF donors help to purchase new equipment at the Western College of Veterinary Medicine, everybody benefits. WCVM clinicians and researchers gain access to vital pieces of equipment that help to improve the quality of health care for their patients. Plus, veterinary students gain experience and training on the latest technologies.

Interested? Visit cahf.usask.ca and click on "Support CAHF" to view the latest pieces of equipment on the CAHF Wish List.

Questions? Please contact **Lisa Green**, WCVM's development officer (**306-966-7450**; lisa.green@usask.ca).

COST CATEGORY: \$10,000 AND OVER

NAME OF ITEM: Tekscan HR Walkway 4 pressure platform measurement system.

ESTIMATED COST: \$46,000

SERVICE: Small animal surgery

FACULTY MEMBER: Drs. Peter Gilbert, Kathleen Linn and Cindy Shmon

USE OF EQUIPMENT: A pressure platform analysis system will allow us to objectively analyze the gait of dogs and cats in clinical and research setting. The system gives us information on how the animal is placing its paws, including which toes are being loaded more, how much time it is spending on each limb and if it is placing less weight on one or more limbs. We can also determine how much force the animal is placing on each limb during its gait cycle.

With this information we can do many things, having objective data will allow us to evaluate the effectiveness of surgical procedures and rehabilitation performed to treat orthopedic problems. One of the problems with assessing the success of treatments is the variability involved with patient evaluation, the pressure platform gives us hard numbers and removes subjectivity from the assessment which gives a more accurate assessment.

The pressure platform can also be used to evaluate patients with subtle lameness or neurological problems as it can rapidly determine differences in limb use, which will help us target our diagnosis. This would be particularly important in performance dogs that often present with very subtle lameness that is almost undetectable on physical examination. We would also be able to monitor progression or improvement.

We can also use the pressure platform to evaluate the different gait patterns of different breeds of dogs, this may help us determine why certain breeds are prone to certain disease conditions, (for example large breed dogs and cranial cruciate rupture).

The *HR Walkway* includes a thin floor display with sensors. Paw and hoof strikes are shown and recorded on your computer as vivid 2-D



images that reveal timing, pressures and forces. The strikes are automatically detected, and after being accepted, tables of gait data are displayed and can be printed in reports.

The *Walkway* software interface is easy to learn and powerful to use. With a unique USB electronics design, the system is completely portable and has the versatility that allows for the addition of other systems for various applications such as in-horseshoe pressure assessment. The system includes the following components:

HARDWARE

- (8) *VersaTek* Cuffs
- (4) *VersaTek* 2-Port Hubs
- (1) 4-port Powered USB Hub
- (1) Hub Enclosure
- (1) Platform

SOFTWARE

- (1) Tekscan *Walkway* Software CD:
- (90) Days of Technical Support

OTHER

- (1) Background Wallpaper
- (1) Year Hardware Warranty
- (1) Electronic Operating Manual

OPTIONAL ITEMS

- (1) Video Synchronization Software Module \$995
- (1) Sway Analysis Module (SAM) \$1,500
- (1) Timing Analysis Module (TAM) \$1,500
- (1) Printed Operating Manual \$75

Tekscan Inc in Boston, MA manufactures the equipment. The Canadian distributors are Ultimate Sensor Systems (USS) Inc.

Overall this equipment would expand our ability to assess how dogs move in clinical and research settings, it would allow us to evaluate the success of treatments, diagnose lameness and determine the values for normal gait. Many individuals at the college, but especially the small animal surgery and rehabilitation services, could use it.

ESTIMATED ONGOING COST FOR UPKEEP: We would plan to factor the software support component into any grants for projects that would use the equipment. Alternatively, as the software is very straightforward, we may opt not to have the software support plan.

REPLACEMENT SENSORS

- Replacement 7101E sensor (Assembly must be sent to Tekscan for insertion) \$1,100. This would only come into play if the unit was damaged.