

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, at **306-966-7450** or lisa.green@usask.ca.

COST CATEGORY: \$10,000 AND OVER

NAME OF ITEM: Thromboelastograph (TEG®)

ESTIMATED COST: \$35,000

SERVICE: Critical Care/Small Animal Intensive Care Unit (ICU)

FACULTY MEMBER: Dr. Jennifer Ogeer, Department of Small Animal Clinical Sciences, WCVM

USE OF EQUIPMENT: The TEG® system is comprised of the TEG® analyzer and the TEG® analytical software. Together, they provide a complete picture of the formation and dissolution of the blood clot (showing the balance or imbalance of the pro-coagulant, anticoagulant and fibrinolytic systems).

Haemoscope (www.haemoscope.com) has provided the gold standard in hemostasis testing. The technology is in use at the most prestigious veterinary teaching hospitals in the US. Namely, it's used at the University of Pennsylvania's School of Veterinary Medicine where Drs. Cindy Otto and Amy Alwood have published the most research in this area.

This is a reliable TEG® system that is unparalleled in testing sensitivity. Haemoscope provides rich functionality in its state-of-the-art software, including software-assisted diagnostics, overlaying of multiple tracing for easy visual comparison, and user/clinician connectivity across the hospital and around the world.

Other coagulation testing systems are not point-of-care testing and provide a static, isolated measurement at a single point in time often in plasma — not whole blood. Other hemostasis systems provide results that only claim "correlation" with TEG® analysis. The TEG® system can pinpoint the causes of a coagulopathy and identify the targeted treatment needed for improved patient outcomes — to envision the balance or identify the imbalance. It's a global assessment of coagulation and a point-of-care test. Point-of-care testing is important in intensive care units to allow rapid assessment of patients and quick results. These tests must be run within a few minutes of blood collection to be accurate and reliable.



Above: The TEG® analyzer and TEG® analytical software **Photo:** www.haemoscope.com.

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THROMBOELASTOGRAPH (*continued*)

APPLICABILITY FOR RESEARCH: As a research tool, the TEG[®] system allows monitoring and detection of coagulation disorders in critically ill patients and how the use of anticoagulants, thrombolytic agents and blood component products affect coagulation in many sub-groups of patients:

- Dogs with immune-mediated hemolytic anemia (IMHA) on unfractionated heparin SQ intermittently versus heparin CRI.
- Comparing the use of low molecular weight versus unfractionated heparin in dogs with immune mediated bleeding disorders.
- Dogs with IMHA that are hypercoaguable and prone to PTE or other thromboembolic disorders.
- Feline patients with saddle thrombus on low molecular weight heparin versus unfractionated heparin versus clopidrogel.
- Trauma patients that may be prone to sepsis or DIC.
- Burn patients that may be prone to sepsis and subsequently DIC.
- Systemic disorders such as pancreatitis, neoplasia (splenic hemangiosarcoma, liver disease, portosystemic shunts), acute renal failure that can lead to sepsis, DIC, or other coagulation disorders.
- Cats with cardiomyopathy (for example, HCM) on heparin, plavix to reduce thromboembolic disease.
- Patients with chronic system medical disorders such as hyperadrenocorticism, PLE, PLN that may be prone to DIC or coagulopathies.
- Early detection of disseminated intravascular coagulation or DIC in any critically ill patient.

ESTIMATED ONGOING COST FOR UPKEEP: Approximately \$1,000 per year (depending on rate of consumables).

Visit www.haemoscope.com/technology/index.html for further information about the TEG[®] analyzer.