

BIOMEDICAL & VETERINARY SCIENCES

GRADUATE PROGRAM



ANNOUNCES

The Master of Science Seminar and Examination of

Samantha Barth, DVM
"ADAMTS13 Activity in Dogs with Chronic Enteropathies"

Thursday, July 20, 2023

10:00am

VMIA 220



Bio

Samantha Barth graduated from St. George's University in Grenada in 2016. She completed a rotating internship at The Animal Medical Center in NYC, and became a small animal and exotics general practitioner in NYC for 2 years, but her goals led her to return to specialty medicine. After completing a specialty internship at VCA ASEC in Los Angeles, she came to Virginia Tech for residency training in Small Animal Internal Medicine. After graduation, Samantha is entering into private practice in Long Island, NY.

Funded by

VMCVM Internal Funding
VMCVM Office of Research and Graduate Studies

Lay Language Abstract

Dogs with chronic enteropathies (CE) are frequently reported to have abnormal blood clotting, which can lead to thromboembolism. The mechanism of this hypercoagulable state has yet to be fully understood. Humans with CE also suffer from abnormal blood clotting and thrombosis. Decreased activity of *a disintegrin* and *metalloproteinase* with a thrombospondin type 1 motif, member 13 (ADAMTS13), a von Willebrand factor (vWF) cleaving enzyme, and increased circulating vWF have been reported as contributors to this abnormal hemostasis. Increased vWF collagen binding activity is an indirect measure of large vWF multimers, and is reportedly increased in hypercoagulable humans with CE. Dogs with CE have reduced ADAMTS13 activity, increased vWF:Ag, and increased vWF:CBA compared to healthy control dogs. Twenty privately-owned dogs with CE and 40 healthy dogs were recruited from a hospital population. This was a prospective observational study. ADAMTS13 activity, plasma vWF:Ag and vWF:CBA were assessed in dogs with CE and compared to healthy control dogs. There was no difference in mean ADAMTS13 activity and vWF:Ag between the two groups. The mean vWF:CBA was significantly lower in CE dogs compared to healthy dogs.

ADAMTS13 is unlikely to be a primary mechanism of abnormal blood clotting in dogs with CE.

Presentations

Barth, S. Investigation of Chronic Hepatopathy in a 2 year old Mastiff. Special Interest Liver Group, American College of Veterinary Internal Medicine Research Forum. Philadelphia, PA, 2023

Oral Abstract:

Barth, S., Wilkinson, A., DeMonaco, S., Conner, B., Boes, K. ADAMTS13 Activity in Dogs with Chronic Enteropathies. American College of Veterinary Internal Medicine Research Forum. Philadelphia, PA, 2023

Poster Abstract:

Barth, S., Wilkinson, A., DeMonaco, S., Conner, B., Boes, K. ADAMTS13 Activity in Dogs with Chronic Enteropathies. Virginia Tech BMVS Annual Research Symposium. Blacksburg, VA, 2023

Examination Graduate Committee

Major Advisor/Chair:

Ashley Wilkinson, DVM, MS, DACVIM
Assistant Professor, Small Animal Internal Medicine
Department of Small Animal Clinical Sciences, VMCVM

Graduate Advising Committee Members:

Stefanie DeMonaco, DVM, MS, DACVIM
Associate Professor
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Katie Boes, DVM, MS, DACVP
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