

CURRICULUM VITAE

NAME Blake C. Guard, MS, PhD, DVM		POSITION TITLE Guardian Veterinary Hospital - Owner	
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
Texas A&M University	DVM	May 2021	Veterinary Medicine
Texas A&M University	PhD	Aug 2017	Biomedical Science Microbiome Research Metabolomics Research
Texas A&M University	MS	Dec 2013	Biomedical Science Microbiome Research
Texas A&M University	BS	May 2011	Biomedical Science Music/Theory Minor

Positions and Employment

01/2014 – 08/2017	Department of Small Animal Clinical Sciences Texas A&M University, College Station, TX	Graduate Assistant Research
01/2012 – 12/2013	Department of Small Animal Clinical Sciences Texas A&M University, College Station, TX	Graduate Assistant Research
08/2011 – 12/2011	Pilchuck Veterinary Hospital, Emergency Care Snohomish, WA	Equine Shadowing
08/2007 – 05/2011	Gastrointestinal Laboratory Texas A&M University, College Station, TX	Undergraduate researcher - ELISA /Radio-Immuno Assay Validation

Primary Author Peer Reviewed Articles

Guard BC, Honneffer JB, Jergens AE, Jonika MM, Toresson L, Lawrence YA, Webb CB, Hill S, Lidbury JA, Steiner JM, Suchodolski JS. Longitudinal assessment of microbial dysbiosis, fecal unconjugated bile acid concentrations, and disease activity in dogs with steroid-responsive chronic inflammatory enteropathy. Journal of veterinary internal medicine. 2019 May;33(3):1295-305.

Guard BC, Mila H, Steiner JM, Mariani C, Suchodolski JS, Chastant-Maillard S. Characterization of the fecal microbiome during neonatal and early pediatric development in puppies. PloS one. 2017 Apr 27;12(4):e0175718.

Guard BC, Suchodolski JS. Canine intestinal microbiology and metagenomics: from phylogeny to function. *J Anim Sci*, doi: 10.2527/jas.2015-0029, 2016.

Jergens AE, Guard BC, Redfern A, Rossi G, Mochel JP, Chandra L, Seo YJ, Steiner J, Lidbury J, Allenspach K, Suchodolski JS. Microbiota-Related Changes in Unconjugated Fecal Bile Acids Are Associated With Naturally Occurring, Insulin-Dependent Diabetes Mellitus in Dogs. *Frontiers in veterinary science*. 2019;6:199.

Guard BC, Barr JW, Reddivari L, Klemashevich C, Jayaraman A, Steiner JM, Vanamala J, Suchodolski J. Characterization of microbial dysbiosis and metabolomic changes in dogs with acute diarrhea. *PLoS One*, 10(5), e0127259, 2015.

Co-Author Peer Reviewed Articles

(Accepted – Pending Publication) Pilla, R.; Guard, B.; Blake, A.B.; Ackermann, M.; Webb, C.; Hill, S.; Lidbury, J.A.; Steiner, J.M.; Jergens, A.; Suchodolski, J. Long-term recovery of the fecal microbiome and metabolome of dogs with steroid-responsive enteropathy. Preprints 2021, 2021060493 (doi: 10.20944/preprints202106.0493.v1).

Giaretta PR, Rech RR, Guard BC, Blake AB, Blick AK, Steiner JM, Lidbury JA, Cook AK, Hanifeh M, Spillmann T, Kilpinen S. Comparison of intestinal expression of the apical sodium-dependent bile acid transporter between dogs with and without chronic inflammatory enteropathy. *Journal of Veterinary Internal Medicine*. 2018.

White R, Atherly T, Guard B, Rossi G, Wang C, Mosher C, Webb C, Hill S, Ackermann M, Sciabarra P, Allenspach K. Randomized, controlled trial evaluating the effect of multi-strain probiotic on the mucosal microbiota in canine idiopathic inflammatory bowel disease. *Gut microbes*. 2017 Sep 3;8(5):451-66.

Garcia-Mazcorro JF, Castillo-Carranza SA, Guard BC, Gomez-Vazquez JP, Dowd SE, Brighthsmith DJ. Comprehensive molecular characterization of bacterial communities in feces of pet birds using 16S marker sequencing. *Microbial Ecol*, 1-12, 2016.

Mila H, Grellet A, Mariani C, Feugier A, Guard BC, Suchodolski J, Steiner J, Chastant-Maillard S. Natural and artificial hyperimmune solutions: impact on health in puppies. *Reprod Dom Animals*, 2016. DOI: 10.1111/rda.12824

Sattasathuchana P, Grütznert N, Lopes R, Guard BC, Suchodolski JS, Steiner JM. Stability of 3-bromotyrosine in serum and serum 3-bromotyrosine concentrations in dogs with gastrointestinal diseases. *BMC Vet Res*, 11(1), 5, 2015.

Peer Reviewed Research Abstracts

Guard BC, Toresson L, Park SY, McNeely IH, Honneffer JB, Blake AB, Lawrence YL, Lidbury JA, Steiner, JM, Suchodolski JS. Altered fecal bile acid metabolism in dogs with IBD. *J Vet Intern Med*, 2016.

Suchodolski JS, Olsen E, Honneffer J, Guard BC, Hyde ER, Blake AB, AlShawaqfeh MK, Steiner JM, Barr JW, Knight R, Gaschen FP. Effects of metronidazole on the fecal metabolome in healthy dogs: an untargeted metabolomics approach. *Gastroenterology* 150(4):S586, 2016

Guard BC, Toresson L, Park SY, McNeely IH, Honneffer JB, Blake AB, Lawrence YL, Lidbury JA, Steiner, JM, Suchodolski JS. Altered fecal bile acid metabolism and microbial dysbiosis in dogs with IBD. *Proceedings Keystone Symposium – Microbiota and Metabolic Disorders*. Newport, RI, 2016.

Mila H, Guard BC, Mariani C, Feugier A, Grellet A, Steiner JM, Suchodolski JS, Chastant-Maillard S. Effect of oral hyper-immune plasma administration on intestinal microbiota and growth in puppies. *ECVCN Proceedings*, 2015.

Guard BC, Barr J, Steiner J, Gaschen F, Olson E, Blake A, Suchodolski J. Effects of a 2-week treatment with metronidazole on the fecal metagenome of healthy dogs. Abstracts from the International Veterinary Emergency and Critical Care Symposium 2015. *J Vet Emerg Crit Care*, 25: S1–S32, 2015.

Guard BC, Rossi G, Steiner JM, Suchodolski JS. The effect of the probiotic SIVOYTM on fecal microbial composition in healthy dogs. *J Vet Intern Med*, 29(4): 1178-1179, 2015.

Minamoto Y, Minamoto T, Sattasathuchana P, Buono A, Guard BC, Honneffer JB, Steiner JM, Suchodolski JS. Fecal short-chain fatty acid concentrations in dogs with chronic enteropathy. *J Vet Intern Med*, 29(4): 1185, 2015.

JB Honneffer, MU Sohail, B Wajid, BC Guard, E Serpedin, JM Steiner, JS Suchodolski. Fecal metabolite alterations in dogs with inflammatory bowel disease. Proceedings Keystone Symposium – Microbiota understanding function. Keystone, CO, 2015.

Schmitz S, Suchodolski JS, Guard BC, Steiner JM, Werling D, Allenspach K. Treatment with the probiotic *Enterococcus faecium* in dogs with inflammatory bowel disease: effect on microbiome composition. *J Vet Intern Med*, Doi:10.1111/jvim.12491, 2015.

Honneffer JB, Guard BC, Steiner JM, Suchodolski JS. Alterations in fecal metabolite profiles of dogs with chronic enteropathy. *J Vet Intern Med*, 29(4): 1180-1181, 2015.

Honneffer JB, Guard BC, Steiner JM, Suchodolski JS. Mo1805 Untargeted metabolomics reveals disruption within bile acid, cholesterol, and tryptophan metabolic pathways in dogs with idiopathic inflammatory bowel disease. *Gastroenterol*, 148(4), S-715, 2015.

Honneffer JB, Guard BC, Steiner JM, Jergens AE, Suchodolski JS. Biomolecular pathways of bacteria in the duodenum of dogs with idiopathic inflammatory bowel disease. *J Vet Intern Med*, 28: 1048, 2014.

Buono A, Horton MR, Guard BC, Steiner JM, Lees G, Suchodolski JS. Characterization of functional pathways of the fecal microbiota in dogs during post-natal development. *J Vet Intern Med*, 28: 1046, 2014.

Sattasathuchana P, Grützner N, Thengchaisri N, Lopes R, Guard BC, Suchodolski JS, Steiner JM. Evaluation of serum 3-bromotyrosine concentrations in dogs with eosinophilia, hypcobalaminemia, or pancreatitis. *J Vet Intern Med*, 28: 1043, 2014.

Guard BC, Barr JW, Steiner JM, Suchodolski JS. The fecal microbiome in dogs with acute diarrhea. *J Vet Intern Med*, 28: 1039, 2014.

Guard BC, Barr JW, Reddivari L, Steiner JM, Vanamala J, Suchodolski JS. Serum and urine metabolites in dogs with acute diarrhea. *J Vet Intern Med*, 28: 1038, 2014.

Minamoto Y, Otoni C, Guard BC, Markel ME, Heilmann RM, Steiner JM, Jergens AE, Suchodolski JS. Evaluation of serum metabolite concentrations and fecal microbiota in dogs with idiopathic inflammatory bowel disease before and after treatment. *J Vet Intern Med*, 28(2):737, 2014.

Honneffer JB, Guard BC, Steiner JM, Suchodolski JS. Dysbiosis and changes in gastrointestinal redox equilibrium as evidenced by the fecal metabolome and microbiome of dogs with inflammatory bowel disease. Proceedings 2nd World Congress of Targeting Microbiota, p 144, 2014.

Guard BC, Markel ME, Stephenson CE, Barr JW, Steiner JM, Suchodolski JS. Evaluation of the abundance of *Blautia* Spp., *Fusobacterium* Spp., *Faecalibacterium* Spp. in feces from dogs with acute hemorrhagic diarrhea. *J Vet Intern Med*, 27(3): 700, 2013.

Heilmann RM, Guard BC, Weber K, Suchodolski JS, Steiner JM. Development and analytical validation of an enzyme-linked immunosorbent assay for the quantification of canine calprotectin in serum and feces from dogs. J Vet Intern Med, 25(3): 693, 2011.

Awards/Honors

2017 – Honorarium for Invited speaker invitation to European College of Veterinary Internal Medicine Forum – Malta

2017 – 2nd Place Abstract Award Winner, Comparative Gastroenterology Society, American College of Veterinary Internal Medicine Forum, National Harbor, Maryland – “Effect of the bile acid sequestrant cholestyramine on fecal bile acid concentrations in healthy dogs”

2016 – Travel Grant Award for travel to Keystone Symposium on Gut Microbiota and Metabolic Disorders in April 2016 (Newport, Rhode Island), Texas A&M University, College of Veterinary Medicine, Graduate Student Association

2016 – 2nd Place Graduate Student Platform Presentation Winner, Texas A&M University, College of Veterinary Medicine Research Symposium – “Altered fecal bile acid metabolism in dogs with chronic enteropathy”

2015 – Professional Development Award for Travel to GutSki conference – Sponsored by Royal Canin and the Comparative Gastroenterological Society

2015 – “Publication of the month” by American College of Veterinary Emergency and Critical Care August/September issue – “Characterization of microbial dysbiosis and metabolomic changes in dogs with acute diarrhea”

2015 – Universidad Autonoma de Nuevo Leon Abstract Award Winner, General Escobedo, N.L. Mexico – “Comprehensive molecular survey of bacterial communities in feces of pet birds using 16S marker sequencing”

Oral Abstract Presentations

2016 Texas A&M University College of Veterinary Medicine Research Symposium – “Altered fecal bile acid metabolism in dogs with chronic enteropathy”

2016 Comparative Gastroenterology Society (GutSki Conference) – “Altered fecal bile acid metabolism in dogs with chronic enteropathy.” Winter Park, CO.

2016 ACVIM Abstract – “Altered fecal bile acid metabolism in dogs with IBD.” Denver, CO

2015 ACVIM Abstract – “The effect of the probiotic SLAB51 (SIVOY) on fecal microbial composition in healthy dogs.” Indianapolis, IN.

2015 Comparative Gastroenterology Society (GutSea conference) – “The effect of the probiotic SLAB51 (SIVOY) on fecal microbial composition in healthy dogs.” Placencia, Belize.

2014 American College of Veterinary Medicine Abstract – “Serum and urine metabolites in dogs with acute diarrhea.” Nashville, TN.

2014 American College of Veterinary Medicine Abstract – “Fecal microbiome in dogs with acute diarrhea.” Nashville, TN.

- 2014 Comparative Gastroenterology Society (GutSki conference) – “Fecal microbiome in dogs with acute diarrhea.” Winter Park, CO.
- 2014 Student Research Week – Oral abstract judge (selected volunteer)
- 2014 Student Research Week – “Fecal microbiome and metabolome in dogs with acute diarrhea.” Texas A&M University, College Station, TX.
- 2013 Student Research Week – “Evaluation of the abundance of *Blautia* spp., *Fusobacterium* spp., and *Faecalibacterium* spp. in feces from dogs with acute hemorrhagic diarrhea.” Texas A&M University, College Station, TX.

Training

- Study design and formatting
- Fecal Microbial Transplantation and Probiotic Administration and study design
- Gas chromatography/Mass spectrometry assay development and validation
- Quantitative PCR assay development and validation
- QIIME (Bioinformatics Software) Microbiome Data Analysis and Interpretation
- Metabolomic Data Analysis and Interpretation
- Statistical Analysis and Interpretation
- Lyophilization (Freeze Drying) Techniques

Professional Memberships

- 2018 – 2020 American Association of Small Ruminant Practitioners (Treasurer)
- 2016 – Present American Indian Science and Engineering Society
- 2012 - 2018 Comparative Gastroenterology Society
- 2013 - 2017 American Gastroenterological Society

Service

- 2015 Ad Hoc Reviewer PLOS One