

Brittany M. Vester
bvester2@illinois.edu

Contact Information

University of Illinois
Department of Animal Sciences
180 Animal Sciences Laboratory
1207 West Gregory Drive
Urbana, IL 61801

Phone (217) 333-7348
Fax (217) 333-7861
Mobile (765) 491-9409

Education

Doctor of Philosophy

Department of Animal Sciences
Non ruminant nutrition/ Comparative animal nutrition
Graduation Date: December 2008

University of Illinois, Champaign-Urbana, IL

Masters of Science

Department of Animal Sciences
Non ruminant Nutrition/ Companion animal nutrition
Graduation Date: May 2006

University of Illinois, Champaign-Urbana, IL

Bachelors of Science

Department of Animal Sciences
Graduation Date: May 2004

Purdue University, West Lafayette, IN

Work Experience

University of Illinois: Champaign-Urbana, IL
Postdoctoral Research Associate

October 2008- Present

Supervise and participate in student projects
Write scientific manuscripts and book chapters with senior researchers
Experimental diet formulation

University of Illinois: Champaign-Urbana, IL
Graduate Research Assistant

July, 2004- October, 2008

PhD research: Nutritional and health consequences in domestic and wild felids of feeding diets of varied macronutrient composition and subjected to select processing conditions

Masters research: Evaluation of zinc methionine for use in weanling puppy diets

Lincoln Park Zoo: Chicago, IL
Zoo Nutrition Intern

Summer, 2003

Conducted independent research on various species (reptiles, lemurs, tamarins)
Formulation of diets using computer-based program

Purdue University: West Lafayette, IN

October, 2001- February, 2004

Department of Animal Sciences Lab Assistant

Teaching Experience

University of Illinois: Champaign- Urbana, IL

Fall, 2005- Spring, 2008

Teaching Assistant

ANSC 215- Humane Education with Companion Animals

University of Illinois: Champaign-Urbana, IL

Guest Lecturer

ANSC 422- Companion Animal Nutrition

ANSC 205- Companion Animal Management

Professional Societies

Comparative Nutrition Society (CNS)

American Society of Animal Sciences (ASAS)

American Society of Nutrition (ASN)

Awards and Honors

Alpha Zeta

Initiation Spring, 2002

Graduate College Conference Travel Award

Spring, 2006; Fall, 2008

Gamma Sigma Delta Honor Society for Agriculture

Initiation Spring, 2006

International Ingredient Corporation Pinnacle Award

2007

Publications

Peer Reviewed Publications

Vester, B.M., B.L. Dalsing, I.S. Middelbos, C.J. Apanavicius, D.C. Lubbs, and K.S. Swanson. 2009. A high protein diet impacts fecal microbial populations in growing kittens. *Arch. Anim. Nutr.* (Submitted).

Vester, B.M., K.R. Belsito, K.J. Liu, and K.S. Swanson. 2009. Serum metabolites, total ghrelin, and leptin are modified by age and diet in weanling kittens fed either a high- or moderate-protein diet. *Arch. Anim. Nutr.* (Submitted).

Vester, B.M., S.L. Burke, K.J. Liu, C.L. Dikeman, L.G. Simmons, K.S. Swanson. 2009. Influence of Feeding Raw or Extruded Feline Diets on Nutrient Digestibility and Nitrogen Metabolism of African Wildcats (*Felis lybica*). *Zoo Biol.* (Submitted).

Vester, B.M., K.J. Liu, T.L. Keel, T.K. Graves, and K.S. Swanson. 2009. In Utero and Postnatal Exposure to a High-protein Diet Leads to Changes in Adipose Tissue mRNA Expression and Blood Metabolites in Kittens. *Br. J. Nutr.* (Submitted).

- Vester, B.M.**, I.S. Middelbos, S.L. Burke, C.L. Dikeman, L.G. Simmons, and K.S. Swanson. 2009. Evaluation of nutrient digestibility and fecal characteristics of exotic felids fed horse- or beef-based diets: Use of the domestic cat as a model for exotic felids. *Zoo Biol.* (Submitted).
- Vester, B.M.**, S.M. Sutter, T.L. Keel, T.K. Graves, and K.S. Swanson. 2009. Ovariohysterectomy alters body composition and adipose and skeletal muscle gene expression in cats fed a high-protein or moderate-protein diet. *Anim.* (Submitted).
- Belsito, K.R., **B.M. Vester**, T. Keel, T.K. Graves, and K.S. Swanson. 2008. Spaying affects food intake, body composition, physical activity, and adipose tissue and skeletal muscle gene expression in cats. *J. Anim. Sci.* (in press).
- Lubbs, D.C., **B.M. Vester**, N.D. Fastinger, and K.S. Swanson. 2008. Dietary protein concentration affects intestinal microbiota of adult cats. *J. Anim. Physiol. Anim. Nutr.* (In press).
- Respondek, F., K.S. Swanson, F. Herpigny, K.R. Belsito, **B.M. Vester**, A. Wagner, L. Istasse, and M. Diez. 2008. Effects of fructooligosaccharides on insulin sensitivity and gene expression of fat tissue in obese dogs. *J. Nutr.* 138:1712-1718.
- Swanson, K.S., **B.M. Vester**, C.J. Apanavicius, N.A. Kirby, L.B. Schook. 2008. Implications of age and diet on canine cerebral cortex transcription. *Neurobiol. Aging* (In press).
- Vester, B.M.**, S.L. Burke, C.L. Dikeman, L.G. Simmons, and K.S. Swanson. 2008. Nutrient digestibility and fecal characteristics are different among captive exotic felids fed a beef-based raw diet. *Zoo Biol.* 27: 126-136.
- Apanavicius, C.J., K.L. Powell, **B.M. Vester**, L.K. Karr-Lilienthal, L.L. Pope, N.D. Fastinger, M.A. Wallig, K.A. Tappenden, and K.S. Swanson. 2007. Fructan supplementation attenuates decreased food intake, fever, and epithelial sloughing from Salmonella challenge in weanling puppies. *J. Nutr.* 137(8): 1923-1930.
- Vester, B.M.**, L.K. Karr-Lilienthal, D.J. Tomlinson, K.S. Swanson, and G.C. Fahey Jr. 2007. Indicators of Zinc Status of Weanling Puppies are affected by Zinc Dietary Concentration. *Prof. Anim. Sci.* 23: 448-453.

Book Chapters

- Barry, K.A., **B.M. Vester**, and G.C. Fahey, Jr. 2009. Prebiotics in Companion and Livestock Animal Nutrition. In: *Prebiotics and Probiotics Science and Technology*. D. Charalampopoulos and R.A. Rastall (ed.) Springer-Verlang. (In press).
- Vester, B.M.** and G.C. Fahey, Jr. 2009. Prebiotics and Probiotics in Companion Animal Nutrition. In: *Handbook of Prebiotics and Probiotics: Health Benefits and Food Applications*. S.S. Cho (ed.) CRC Press (In press).

Invited Papers

Vester, B.M., and G.C. Fahey Jr. 2006. The importance of nutrition in skin quality and coat health of dogs and cats. In: Lyons, TP, Jacques, KA, and JM Hower editors. Nutritional Biotechnology in the Feed and Food Industries. Nottingham: Nottingham University Press.

Vester, B.M., and K.S. Swanson. 2007. Nutrient-gene interactions: Application to pet nutrition and health. In: Veterinary Focus, The worldwide journal for the companion animal veterinarian. 17(2): 25-32.

Oral Abstracts Presented

***Vester, B.M.**, K. J. Liu, T.L. Keel, T.K. Graves, and K.S. Swanson. 2008. Effects of spaying on adipose and muscle gene expression and blood indices in cats fed a high-versus moderate-protein diet. Nestle Purina Nutrition Forum.

* **Vester, B.M.**, K.J. Liu, T.L. Keel, T.K. Graves, and K.S. Swanson. 2008. Evaluation of high protein diets in kittens during their first year of life. ASAS National Meeting. (Accepted).

* **Vester, B.M.**, S.L. Burke, K.J. Liu, C.L. Dikeman, L.G. Simmons, and K.S. Swanson. 2008. Influence of feeding raw or extruded feline diets on nutrient digestibility and nitrogen metabolism in African wildcats. ASAS National Meeting. (Accepted).

* **Vester, B.M.**, I.S. Middelbos, S.L. Burke, C.L. Dikeman, L.G. Simmons, K.S. Swanson. 2008. Fecal microbial populations of large captive exotic felids and domestic cats fed beef- and horse-based raw diets. Comparative Nutrition Society Symposium. (Accepted).

* **Vester, B.M.**, A.N. Beloshapka, S.L. Burke, C.L. Dikeman, L.G. Simmons, K.S. Swanson. 2008. Nutrient digestibility and fecal characteristics of large captive exotic felids and domestic cats fed beef- or horse-based raw diet. Comparative Nutrition Society Symposium (Accepted).

Belsito, K.R., **B.M. Vester**, T.K. Graves, and K.S. Swanson. 2007. Effects of spaying on activity levels, food intake, and body composition of cats. FASEB J. 21:Abstr. #28.5.

Belsito, K.R., **B.M. Vester**, T. Keel, T.K. Graves, K.S. Swanson. 2007. Spaying affects blood metabolites and adipose tissue gene expression in cats. Nestle Purina Nutrition Forum Proceedings: A Supplement to Compendium. 30(3): 58.

***Vester, B.M.**, K.R. Belsito, K.J. Liu, K.S. Swanson. 2007. Serum chemistry changes in weanling kittens fed high- or moderate-protein diets. FASEB J. 21:Abstr. #28.3.

- ***Vester, B.M.**, S.L. Burke, C.L. Dikeman, L.G. Simmons, and K.S. Swanson. 2007. Nutrient Digestibility and Fecal Characteristics of Exotic Felids Fed a Beef-Based Raw Diet. *J. Anim. Sci.* 85(Suppl. 1):196.
- ***Vester, B.M.**, K.J. Liu, T. Keel, T.K. Graves, and K.S. Swanson. 2007. Effects of spaying on food intake, weight gain, body condition score, activity, and body composition in cats fed a high- versus moderate-protein diet. *Nestle Purina Nutrition Forum Proceedings: A Supplement to Compendium.* 30(3): 59.

Poster Abstracts Presented

- Apanavicius, C.J., **B.M. Vester**, L.K. Karr-Lilienthal, L.L. Pope, N.D. Fastinger, and K.S. Swanson. 2007. Effects of fructan supplementation on intestinal microbial populations of salmonella-challenged weanling puppies. *FASEB J.* 21:Abstr. #705.14.
- Belsito, K.R., **B.M. Vester**, F. Respondek, M. Diez, and K.S. Swanson. 2007. Body condition and scFOS supplementation influence adipose tissue mRNA abundance. *Nestle Purina Nutrition Forum Proceedings: A Supplement to Compendium.* 30(3).
- Dalsing, B.L., **B.M. Vester**, C.J. Apanavicius, D.C. Lubbs, and K.S. Swanson. 2007. High protein diet impacts fecal microbial populations in growing kittens. *Nestle Purina Nutrition Forum Proceedings: A Supplement to Compendium.* 30(3).
- Lubbs, D.C., **B.M. Vester**, N.D. Fastinger, and K.S. Swanson. 2007. Qualitative and quantitative changes in fecal microbiota of cats fed high- or moderate-protein diets. *FASEB J.* 21:Abstr. #705.2.
- * **Vester, B.M.**, L.K. Karr-Lilienthal, K.S. Swanson, G.C. Fahey, Jr. 2005. Evaluation of zinc methionine for use in weanling puppy diets. *Comp. Cont. Edu. Pract. Vet.* 28(Suppl. 4A):76.
- Apanavicius, C.J., **B.M. Vester**, L.K. Karr-Lilienthal, L.L. Pope, and K.S. Swanson. 2006. Effects of prebiotic supplementation on immune response to a bacterial challenge in weanling puppies. *FASEB J.* 20:Abstr. #131.12.
- Karr-Lilienthal, L.K., C.J. Apanavicius, **B.M. Vester**, and K.S. Swanson. 2006. Age impacts skeletal muscle gene expression profiles of young adult and geriatric dogs fed either an animal- or plant-protein based diet. *J. Anim. Sci.* 84 (Suppl. 1):172.
- Swanson, K.S., C.J. Apanavicius, **B.M. Vester**, and N A. Kirby. 2006. Impact of age on gene expression profiles of canine brain tissue. *J. Anim. Sci.* 84 (Suppl. 1):172.
- * **Vester, B.M.**, C.J. Apanavicius, and K.S. Swanson. 2006. Colonic gene expression profiles of young adult and geriatric dogs fed different diets. *FASEB J.* 20:Abstr. #131.11.

- * **Vester, B.M.**, C.J. Apanavicius, L.K. Karr-Lilienthal, and K.S. Swanson. 2006. Diet impacts colonic gene expression profiles of young adult and geriatric dogs fed either an animal- or plant-protein based diet. *J. Anim. Sci.* 84 (Suppl. 1):172.
- * **Vester, B.M.**, L.B. Schook, and K.S. Swanson. 2006. Diet and age affect blood gene expression profiles and may be utilized as a predictor of tissue profiles. *Proceedings: Third International Conference on Advances in Canine and Feline Genomics* (Poster Abstract # 59).

* Presenting author.