

Yang Qu

PERSONAL DETAILS

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EDUCATION

Ph.D. in Animal Science 2013-2017
University of Maryland, College Park, MD
M.Sc. in Mathematics 2022-2024
University of North Carolina at Charlotte, Charlotte, NC
M.Sc. in Animal Science 2011-2013
Oregon State University, Corvallis, OR
B.Sc. in Veterinary Science 2006-2011
China Agricultural University, Beijing, China

WORK EXPERIENCE

Biostatistician (Full-time) 2024-Present
College of Veterinary Medicine, North Carolina State University

- Provide comprehensive support for data analysis in medical research conducted by the College of Veterinary Medicine at North Carolina State University.
- Areas of expertise include statistical inference, experimental design, power analysis, Bayesian statistics, and MCMC sampling.

Graduate Research Assistant (Part-time) 2023-2024
Department of Mathematics and Statistics, University of North Carolina at Charlotte

- Performed Bayesian computation in small area estimation using R.
- Conducted descriptive statistical analysis on public health data.

Summer Research Internship (Full-time) 2023
College of Computing and Informatics, University of North Carolina at Charlotte

- Led principal component analysis and regression analysis for a high-dimensional microbiome dataset using R.
- Conducted a literature review on comparative genomic analysis: methods and applications.

Postdoctoral Fellow (Full-time) 2017-2019
University of Maryland, College Park

- Designed animal experiments with a full factorial structure.
- Conducted molecular analysis including qPCR, RNA, and microbiome sequencing.
- Completed data analysis using R and published results in the Journal of Dairy Science.

Graduate Research Assistant (Full-time) 2013-2017
University of Maryland, College Park

- Conducted in vitro experiments on bovine neutrophil metabolism using GC-MS.

- Assessed the impact of short-term dietary tocopherol supplementation on tissue absorption, immune function, and gene expression in lactating dairy cows.
- Analyzed gene expression related to tocopherol metabolism in bovine liver and assessed mitochondrial tocopherol concentrations.
- Investigated the effects of tocopherol supplementation on inflammatory responses and immune function in bovine neutrophils.

PUBLICATIONS

- Qu, Y., Lytle, K., Traber, M.G., and Bobe, G. (2013). Depleted serum vitamin E concentrations precede left displaced abomasum in early-lactation dairy cows. **Journal of Dairy Science**, 96(5), 3012-3022. doi:10.3168/jds.2012-6252
- Qu, Y., Fadden, A.N., Traber, M.G., and Bobe, G. (2014). Potential risk indicators of retained placenta and other diseases in multiparous cows. **Journal of Dairy Science**, 97(7), 4151-4165. doi:10.3168/jds.2013-7814
- Qu, Y., Elsasser, T.H., Kahl, S., Garcia, M., Scholte, C.M., Connor, E.E., Schroeder, G.F., and Moyes, K.M. (2018). The effects of feeding mixed tocopherol oil on whole blood respiratory burst and neutrophil immunometabolism-related gene expression in lactating dairy cows. **Journal of Dairy Science**, 101(5), 4332-4342. doi:10.3168/jds.2017-13555
- Qu, Y., Kahl, S., Miska, K.B., Schreier, L.L., Russell, B., Elsasser, T.H., and Proszkowiec-Weglarz, M. (2021). The effect of delayed feeding post-hatch on caeca development in broiler chickens. **British Poultry Science**, 62(5), 731-748. doi:10.1080/00071668.2021.1925554
- Oeffner, S.P., Qu, Y., Just, J., Quezada, N., Ramsing, E., Keller, M., Cherian, G., Goddick, L., and Bobe, G. (2013). Effect of flaxseed supplementation rate and processing on the production, fatty acid profile, and texture of milk, butter, and cheese. **Journal of Dairy Science**, 96(2), 1177-1188. doi:10.3168/jds.2012-6084
- Garcia, M., Elsasser, T.H., Juengst, L., Qu, Y., Bequette, B.J., and Moyes, K.M. (2016). Amino acid supplementation and stage of lactation alter apparent utilization of nutrients by blood neutrophils from lactating dairy cows in vitro. **Journal of Dairy Science**, 99(5), 3777-3783. doi:10.3168/jds.2015-10778
- Garcia, M., Elsasser, T.H., Qu, Y., Zhu, X., and Moyes, K.M. (2015). Glucose supplementation has minimal effects on blood neutrophil function and gene expression in vitro. **Journal of Dairy Science**, 98(9), 6139-6150. doi:10.3168/jds.2014-9251
- Garcia, M., Qu, Y., Scholte, C.M., O'Connor, D., and Rounds, W.P. (2017). Regulatory effect of dietary intake of chromium propionate on the response of monocyte-derived macrophages from Holstein cows in mid lactation. **Journal of Dairy Science**, 100(8), 6389-6399. doi:10.3168/jds.2016-11966
- Qu, Y. (2017). The effect of feeding mixed tocopherol oil on body accumulation and immune cell functions in lactating Holstein dairy cows (Doctoral dissertation). University of Maryland, College Park.
- Scholte, C.M., Nelson, D.C., Garcia, M., Linden, S.B., Elsasser, T.H., Kahl, S., Qu, Y., and Moyes, K.M. (2018). Recombinant bacteriophage endolysin PlyC is nontoxic and does not alter blood neutrophil oxidative response in lactating dairy cows. **Journal of Dairy Science**, 101(7), 6419-6423. doi:10.3168/jds.2017-13997

- Qu, Y., Elsasser, T.H., Newbold, J.R., Connor, E.E., Garcia, M., Scholte, C.M., and Moyes, K.M. (2016). Short-term feeding of a tocopherol mix (α -, β -, γ -, and δ -) alters the daily pattern of tocopherol isoforms present in milk and blood in lactating dairy cows. *Journal of Animal Science*, 94(Suppl. 5), 810-810. doi:10.2527/jam2016-1631

PROFESSIONAL SERVICE

- Invited Reviewer, Journal of Dairy Science. 2019

HONORS AND AWARDS

- Graduate Dean's Fellowship, University of Maryland at College Park. 2013
- 1st Place Award Poster Competition: Mid-Atlantic Nutrition Conference, Timonium, MD. 2013
- Jacob K. Goldhaber Travel Award, University of Maryland at College Park. 2013
- TLTC-International Teaching Fellowship, University of Maryland at College Park. 2015
- Graduate Student Summer Research Fellowship, University of Maryland at College Park. 2014
- Graduate Teaching Assistantship, University of North Carolina at Charlotte. 2023

TEACHING EXPERIENCE

Graduate Teaching Assistant 2023-2024
Department of Mathematics and Statistics, University of North Carolina at Charlotte

- Independently conducted four College Algebra workshop sessions per week. Each session had approximately 25 registered undergraduate students and lasted 75 minutes.
- Held office hours twice per week.
- Attended weekly College Algebra course group meetings.

Mathematics and Statistics Tutor 2022-2023
Department of Mathematics and Statistics, University of North Carolina at Charlotte

- Provided instruction and support to students in College Algebra, Calculus I and II, and Elementary Statistics.
- Independently conducted four tutoring sessions per week, each lasting two hours.

Graduate Teaching Assistant 2013-2017
Department of Animal and Avian Sciences, University of Maryland, College Park

- Delivered lectures on animal nutrition twice per week.
- Conducted two animal nutrition lab sessions per week. Each session had approximately 20 registered undergraduate students and lasted 60 minutes.
- Held office hours and graded homework and exams.