PhD Fellowship Training Program in Dairy Production Systems

The Dairy Population Medicine Program at the College of Veterinary Medicine, University of Minnesota, is excited to announce a new PhD fellowship training program in dairy production systems. Fellowships will support training of PhD scientists capable of applying their research acumen to improve dairy health and well-being, while enhancing the safety and security of our food chains.

PhD Fellowship Program Description
Training will emphasize technical aptitude gained from PhD thesis research and rigorous coursework. Additionally, students will complete several experiential training programs to develop a deeper learning of food production systems, food safety regulation and food policy. Through deliberate leadership training, Fellows will gain the applicable leadership, communication, and teamwork skills employers increasingly demand. Graduates will be able to immediately translate new knowledge gained from research to emerging problems because they are scientifically astute, can work across disciplines, have practical knowledge of global food systems, can inform policy, and are effective communicators with fellow scientists, producers and the public. This will enable PhD graduates to assume leadership positions in which they can conduct novel research and promote dairy-sourced food safety and food security, both nationally and globally.

Students accepted into the program will be matched, depending on their focus area of interest, with PhD advisors selected from participating faculty conducting research focused on dairy health, welfare or production, epidemiology, biosecurity, host immunity, antimicrobial stewardship, and food defense systems. Specific examples of ruminant faculty and active research programs within the CVM include, but are not limited to:

- Dr. Whitney Knauer VMD, PhD: Calf health; Behavior; Welfare; Pain management. [https://vetmed.umn.edu/bio/college-of-veterinary-medicine/whitney-knauer](https://vetmed.umn.edu/bio/college-of-veterinary-medicine/whitney-knauer)
- Dr. Luciano Caixeta  DVM, MS, PhD: Transition cow management; Metabolic diseases [https://vetmed.umn.edu/bio/college-of-veterinary-medicine/luciano-caixeta](https://vetmed.umn.edu/bio/college-of-veterinary-medicine/luciano-caixeta)
- Dr. Noelle Noyes  DVM, PhD: Metagenomics; Microbiome; Antimicrobial resistance ([www.thenoyeslab.org](http://www.thenoyeslab.org))
- Dr. Sandra Godden DVM, DVSc: Mastitis control; Antimicrobial stewardship; Calf health ([https://vetmed.umn.edu/bio/college-of-veterinary-medicine/sandra-godden](https://vetmed.umn.edu/bio/college-of-veterinary-medicine/sandra-godden))
- Dr. Scott Wells  DVM, PhD: Food systems; Infectious disease surveillance. [https://vetmed.umn.edu/bio/college-of-veterinary-medicine/scott-wells](https://vetmed.umn.edu/bio/college-of-veterinary-medicine/scott-wells)

Graduate Student Training Resources at the College of Veterinary Medicine
Minnesota is 6th largest producer of agricultural products, 8th in milk production, and in the top two for both pork and turkey production. PhD trainees will be greatly advantaged in that the UMN has Veterinary and Agricultural Colleges, a Medical School and a School of Public Health
at a single location. Moreover, we are in a major US city that also hosts the state Board of Animal Health and Department of Health, and >200 food business headquarters including Cargill, Land O’ Lakes, and General Mills. Although administratively centered in the CVM, trainees can access a variety of intersecting Centers of Excellence and service units, thereby offering an unparalleled range of research projects and mentors.

The cornerstone of the CVM dairy teaching program is the John Fetrow Dairy Education Center near St. Peter, MN (https://vetmed.umn.edu/centers-programs/dairy-education-center). The result of a unique public/private partnership, this academic facility is merged into a large commercial dairy, supporting both DVM and graduate student teaching and research opportunities. Additionally, dairy facilities exist which are managed by College of Food, Agricultural and Natural Resource Sciences. Our Fellows will also have unique opportunities through the Veterinary Diagnostic Lab (VDL). As the official laboratory of the MN Board of Animal Health (MNBAH), this CVM unit protects animal health through national leadership in identifying emerging diseases, conducting disease surveillance, developing new diagnostics, training diagnosticians, and educating DVMs.

**Applicant Requirements:** We seek students with the necessary intelligence, scientific aptitude, initiative, and enthusiasm for learning to complete this challenging and multifaceted program of study. Students must be citizens or nationals of the United States of America and must hold a DVM or B.S. in a relevant area of the life sciences. Preference will be given to students with advanced degrees and prior research experience in infectious or metabolic diseases or food animal biology. Applications must be submitted to the U of Minnesota College of Veterinary Medicine Graduate programs (https://vetmed.umn.edu/education-training/ms-phd-programs). Students interested in pursuing MS or PhD degrees who are not U.S. citizens or nationals are still encouraged to apply through the regular CVM graduate program application process, as additional graduate student training opportunities may exist outside of the aforementioned fellowship program.

For more information about this PhD fellowship program, please contact Sandra Godden (Email: godde002@umn.edu; Tel: 612-625-8177) or any of the other ruminant faculty listed above.

Information on applying to the U of Minnesota College of Veterinary Medicine Graduate Program can be found at: https://vetmed.umn.edu/education-training/ms-phd-programs