

Graduate Student Opportunity in Livestock Microbiome at North Dakota State University, Fargo, North Dakota, USA.

One graduate student position (Ph.D. or MSc. level) is available in Dr. Samat Amat's lab in the Department of Microbiological Sciences at North Dakota State University (NDSU). The student will be given the opportunity to work on a USDA-AFRI funded project. This project aims to evaluate the impact of altering maternal microbiota via high forage or high concentrate diets on offspring microbiome development, energy balance, methane emissions and feedlot performance in beef cattle. Working together with the collaborators Drs. Kendall Swanson and Carl Dahlen in Animal Science Department, the student will gain a broad range of research experience in the fields of animal microbiome, ruminant nutrition, and reproductive physiology. The specific research skills the student will acquire include, but not limited to, conducting animal trials, nutrient formulation, aerobic and anaerobic culturing, amplicon and metagenomic sequencing data analysis, and energy balance and methane emission measurements from cattle.

The ideal candidate will be passionate about livestock industry and microbiology and has a desire to make contribution to the livestock industry by developing microbiome-based strategies for improved animal health and productivity. The candidates who have background in animal science (ruminant nutrition is preferred), microbiology, or veterinary science are desired. Candidates with bioinformatic skills or have a strong desire to learn amplicon and metagenomic sequencing data and/or other multi-omics data analysis are highly encouraged to apply.

The successful candidate will receive competitive stipends and tuition waiver and can start the graduate program in January 2023. Interested candidates should contact Dr. Samat Amat (samat.amat@ndsu.edu) with a cover letter, CV and contact information for 3 referees.



DEPARTMENT OF MICROBIOLOGICAL SCIENCES

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