



Jobbnorge ID: 244604
Deadline: 5/28/2023
Website: <http://www.nmbu.no>
Scope: Fulltime
Duration: Fixed Term

PhD in the efficiency, predictability and microbial specificity of methane production in dairy cows

PhD scholarship within Ruminant Nutrition

About the position

The Department of Animal and Aquacultural Sciences (IHA), Faculty of Biosciences (BIOVIT) at the Norwegian University of Life Sciences (NMBU) in Ås, near Oslo, has a vacant 3 years PhD-position related to Ruminant Nutrition.

The research project

The PhD project «Sustainable ruminant production: Efficiency, predictability, and microbial specificity of methane production in dairy cows» is funded by NMBU (PhD position) and the Research Council of Norway (ViableCow project 316157). The PhD candidate will work on two workpackages of the ViableCow project that aim (1) to assess the digestion and immune efficiency of cows with low and high enteric methane emissions, (2) to determine if the microbiome and enteric methane emission return to original level after challenge.

The rumen microbiome is studied in collaboration with Prof. Phillip Pope and the immune response in collaboration with Prof. Ulrike Gimsa (Germany). The animal experiments are carried out on campus. Enteric methane is assessed with the GreenFeed system.

The research group

The PhD candidate will join the Ruminant Nutrition and Physiology research group, whose members come from the fields of animal science, veterinary science, biology, bioengineering and microbiology, working on dairy cow, beef, sheep, goat, reindeer and horse nutrition, physiology and microbiology. This group includes 5 professors (full/associate), 6 postdocs/researchers and 9 PhD students.

Main tasks

- Perform digestion trials at the metabolism barn, NMBU
- Quantify enteric methane (CH₄) emissions from dairy cows with the GreenFeed system, NMBU
- Microbial meta-omics/meta-transcriptomics (outsourced), meta-proteomics (in-house)
- Optional: Blood cell isolation/culture assays
- Data analyses, interpretation and manuscript writing

The successful candidate is expected to enter a plan for the progress of the work towards a PhD degree during the first months of the appointment, with a view to completing a doctorate within the PhD scholarship period.

Competence

The successful applicant must meet the conditions defined for admission to a PhD programme at NMBU. The applicant must have an academically relevant education corresponding to a five-year master's degree or a cand.med.vet. degree, with a learning outcome corresponding to the descriptions in the Norwegian Qualification Framework, second cycle. The applicant must have a documented strong academic background from previous studies and be able to document proficiency in both written and oral English. For more detailed information on the admission criteria please see the [PhD Regulations](#) and the relevant [PhD programme description](#).

The applicant must document expertise and interest in the research subject.

Required qualifications and competences

- Master degree in Animal Science, Biology, or similar with relevant profile can be considered. Candidates that are close to completion of their master's degrees will also be considered.

Desired qualifications and competences

- Experience with animal experimental and/or laboratory work
- Training and research experience in Ruminant/Herbivore Nutrition/Physiology, and/or Microbiology, and/or Immunology
- Good academic writing skills
- Good statistical skills

Personal skills:

- Curiosity and high motivation for research

- Accuracy and patience with experimental work
- Ability for independent work and teamwork displaying initiative
- Applicants must be proficient in written and spoken English

Remuneration and further information

The position is placed in government pay scale position code 1017 PhD fellow. PhD fellows are normally placed in pay grade 54 (NOK 532.200,-) on the Norwegian Government salary scale upon employment and follow ordinary meriting regulations.

Employment is conducted according to national guidelines for University and Technical College PhD scholars.

For further information, please contact Associate Professor Angela Schwarm, E-mail: angela.schwarm@nmbu.no; phone: +47 67 23 26 17

[Information for PhD applicants](#) and general [information to applicants](#)

Application

To apply online for this vacancy, please click on the 'Apply for this job' button above. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

Application deadline: 28.05.2023

In the application, the candidate must confirm that information and documentation (in the form of attachments) submitted via the job application can also be used by NMBU in a possible admission process.

Applicants invited for an interview are expected to present original diplomas and certificates.

The following documents must be attached to the application:

- Motivation letter (maximum 1 page)
- Complete CV
- Certified copies of academic diplomas and certificates. (i.e. Di-ploma, transcript. Diploma supplement for both bachelor and master). Diplomas, transcripts and diploma supplements that are not in Norwegian or English must be uploaded in the original language. An English translation of these documents must also be attached.
- Applicants from universities outside Norway are kindly requested to send a diploma supplement, or a similar document, which describes in detail the study program and grading system. In addition most important information from the diplomas should be highlighted in the CV: indicate the number of credits separately for master level (120 credits required) and bachelor level (180 credits required); indicate the final grade, separately for master and bachelor level, and master thesis, ideally in the following format e.g. 3.8/4 (4 is best) or 1.6/4 (1 is best)
- Documentation of proficiency in written and oral English in accordance with NMBU PhD regulation section 5-2 (3).
- Names and contact details for two references.
- Additional relevant documentation of professional knowledge (for example, list of scientific works). If it is difficult to judge the applicant's contribution for publications with multiple authors, a short description of the applicant's contribution must be included.

About The Faculty of Biosciences

The Faculty of Biosciences (BIOVIT) aims to help shape the future food- and bio-production through teaching and research within biology and sustainable production and use of plants, livestock and fish. The faculty has an annual turnover of approx. 250 million kroner. The faculty is organized into nine research sections: Genome Biology, Breeding and

Quantitative Genetics, Ruminant Nutrition and Physiology, Ethology and Animal Environment, Animal Nutrition and Physiology, Agroecology, Genetics and Plant Breeding, Plant Protection and Food Crops, Plant Biology and Biotechnology. The faculty has seven large and small research centers and laboratories, including a Center for Outstanding Innovation - Foods of Norway. The faculty is responsible for bachelor's and master's degrees in Aquaculture, Biology, Animal Science and Plant science as well as English-language master's degrees in Agroecology, Plant Sciences, Feed Manufacturing Technology and Genome Sciences.

The faculty is responsible for PhD degrees in animal science and plant science. The faculty currently has about 690 bachelor and master students and 90 PhD students. The faculty has about 240 employees and its own faculty administration.

The Norwegian University of Life Sciences (NMBU)

NMBU's focus is a joint effort for a sustainable future. Our university will contribute to securing the future of life, through outstanding research, education, communication and innovation.

NMBU has 1,900 employees of which about 500 phd scholarships and 6,700 students. The university is divided into seven faculties.

NMBU believes that a good working environment is characterised by diversity.

We encourage qualified candidates to apply regardless of gender, functional ability, cultural background or whether you have been outside the labour market for a period. If necessary, workplace adaptations will be made for persons with disabilities. More information about NMBU is available at www.nmbu.no.

Additional information

Place of service:

Universitetstunet 3 1430 Ås (Ås Municipality)