

Academic employee in Multiomics Bioinformatics/ Lab Technician

Department of Animal and Veterinary Sciences, Aarhus University, invites applicants for a position as academic employee with a starting date on August 1, 2025, or shortly thereafter.

Job Description

The Department of Animal and Veterinary Sciences, Aarhus University, seeks applications from outstanding and interested candidates for an open position of Multiomics Bioinformatician, a permanent, full-time academic technical position.

We are seeking a highly skilled and experienced Senior Bioinformatician to join our dynamic team of Multiomics, Systems biology, Bioinformatics (MSB) at our department who will support the further development of research and educational activities in MSB areas applied to farm and companion animals.

As a Senior Bioinformatician, you will play a crucial role in analyzing complex biological data, developing innovative algorithms, and contributing to groundbreaking research projects in the department. You will contribute to strengthening our capabilities in the fields of multiomics biological sequencing, related data processing (QA/QC) pipelines and downstream genomics and bioinformatics analytical capability using high-performance computing (HPC) and cloud computing environments. The position will be placed under the supervision of Professor Haja Kadarmideen, a research leader in MSB team/theme at our department and primarily support their research and teaching activities.

Key Responsibilities

- Function as key research support technician in the MSB team, working with processing and analyzing one or more of the following data types: genotyping arrays or whole genome or exome (DNA) sequencing, transcriptome sequencing, epigenome sequencing, metagenome sequencing on both animals and pathogens (virus, bacteria, parasites, nematodes etc.).
- Contribute and assist in genomics-to-phenomics and multiomics-to-phenomics research projects in national, European, and international contexts (e.g., European partnerships and Horizon Europe projects).
- Collaborate across research groups to design and execute research projects where MSB forms a core part of activities
- Assist in the activities of institutional research theme: Digitalization, Data Science and Bioinformatics.
- Contribute and assist in bachelor and master's courses and support masters' and PhD students working in MSB areas in technical/practical aspects.

Qualifications

- PhD in genome-informatics, bioinformatics or computational biology, or closely related fields with 1-2 years of working experience in a research support role is an advantage, or Masters' degree in this discipline with 5+ years of experience in a relevant role in academia or industry.
- Solid and proven experience in bioinformatic analysis of multiomics datasets with expertise in one or more of the following: bulk or single cell transcriptome sequencing (RNASeq / scRNASeq), DNA-Seq (WES/WGS), epigenome sequencing (e.g., WGBS/RRBS/ATAC-Seq), metagenome sequencing (16s rRNA and WGS).
- Demonstrated bioinformatics analysis experience using R libraries (Bioconductor, Shiny, dplyr etc.) and version control system (git, bitbucket etc.). Experience in

Application Deadline:
05 May 2025

Faculty:
Faculty of Technical
Sciences

Institute/Faculty:
Department of Animal
Science

Academic contact person:
Haja Kadarmideen
Professor
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+4593521066

Vacant positions:
1

Hours per week:
37

Expected date of accession:
01/08/2025

use of AI and Machine Learning techniques using Python (sklearn, statsmodels, pandas, numpy) is desirable.

- Solid and proven experience in downstream analysis of different omics data types, including functional annotation, gene set enrichment analysis, pathway analysis, and network-based approaches.
- Experience with the use of a few well-known publicly available genotype, gene expression, methylation, metabolomics and metagenomics data repositories and visualization tools in human or animals (e.g., dbGAP /EVA, Animal QTLdb, FAANG, NCBI-GEO, ArrayExpress, GTEx, ENA, BLAST, Ensembl, UCSC Genome Browser, etc).
- Demonstrated proficiency in shell scripting (Bash) for automation, workflow optimization using Nextflow and Snakemake, and setting up computational environments for bioinformatics analysis (e.g., Conda, Docker, Singularity, and environment modules on HPC or cloud systems).
- Comfortable in storing, manipulating, and analyzing big and high-dimensional data including multiomics, biological, clinical and phenomics data using a range of informatics and data science tools on HPC and cloud computing (e.g., AWS) platforms.
- Experience in integrated analyses of multiomics/multimodal datasets is desirable.
- Experience in working with animal pathogen (viral, bacterial, parasite) metagenomics data is desirable.
- Experience in single-cell RNAseq and spatial transcriptomics in organoids is desirable.
- Knowledge of data management concepts (FAIR principles), data integration, and (meta-)data handling is desirable.

What we offer

- A well-developed research infrastructure, laboratories and access to shared equipment and animal-experimental facilities
- An informal and multicultural research environment with high professionalism and close collaboration and networking activities
- A workplace characterized by equality and a good work-life balance, and an open discussion across different fields of research.

Who we are

The Department of Animal and Veterinary Sciences is well-known for its skilled and very innovative interdisciplinary research environments with high international impact. We perform world-class research, which contributes with solutions to solve essential societal challenges within the green transition: food production and veterinary medicine – nationally and globally.

The department generates novel research at the highest international level within sustainable food production, environment, climate and health and welfare for animals and humans. The activities form the basis for the research-based public sector consultancy and degree programs covering bachelor's, master's and PhD degree programs within animal science and veterinary medicine. We offer a lively, engaged and innovative learning and study environment, which is closely integrated into the research environment.

Our department has unique and advanced animal experimental research facilities and technologies, situated in close connection to the research environment, and a comprehensive national and international research network and good industrial and professional collaboration.

Please refer to the Department of Animal and Veterinary Sciences for further information about the department: <https://anivet.au.dk>

Contact

Further information on the position may be obtained from:
Professor Haja Kadarmideen +45 93521066, email: haja.k@anivet.au.dk

Living in Denmark

Please visit the international staff website: <https://internationalstaff.au.dk/prearrival> for information about arriving to and living in Denmark for both the applicant and their potential family.

Place of employment and place of work

The place of work is Department of Animal and Veterinary Sciences, AU Viborg, Blichers Allé 20, DK-8830 Tjele and the area of employment is Aarhus University (AU) with related departments.

Formalities and salary range

Salary and terms as agreed between the Danish Ministry of Taxation and the Confederation of Professional Unions.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/