



DEPARTMENT OF GENETICS AND BIOTECHNOLOGY

BETTER GENES FOR HEALTHIER PLANTS AND ANIMALS



FACULTY OF AGRICULTURAL SCIENCES

AARHUS UNIVERSITY



WELCOME TO THE DEPARTMENT OF GENETICS AND BIOTECHNOLOGY

The Department of Genetics and Biotechnology explores the underlying genetic and physiological background for traits in animals and plants and develops new methods and strategies for farm animal breeding and plant improvement. The aim is to use the knowledge acquired to create healthy and valuable farm animals and crops.



The Department of Genetics and Biotechnology (GBI) works with both plants and farm animals. With plants, the focus is on grasses, cereals and legumes and their food, feed and seed quality, their resistance to disease and stress, and improved cropping practices. With farm animals, the focus is on health, disease resistance and productivity, and development of monitoring and decision support systems that can assist the farmer in managing large herds.

The department develops and implements new molecular methods to study the effect of environmental parameters and stress factors on production, health, fertility, and product quality in farm animals and crop production. The department also studies and implements new methods in the areas of statistics, genetics, biostatistics and bioinformatics.

The knowledge generated by the department is put to use in agricultural research in general, including relevant advisory functions to the government ministries, and in the areas of general biology and research in human medicine.

Specialised research

GBI has about 180 employees who are organised into six research groups:

Crop Ecology and Product Quality

- Bioinformatics, Genetics and Statistics
- Cell Wall Biology and Molecular Virology
- Molecular Genetics and Biotechnology
- Molecular Genetics and System Biology
- Population Genetics and Embryology

Collaboration

Much of the research in GBI is carried out in collaboration with universities and research institutes in Denmark and abroad.



Many projects are also carried out in close cooperation with the industry and the research is both basic and applied.

The department advises and assists the government ministries and provides research-based teaching at the university.

Modern facilities

The department is spread over three locations. In Foulum the scientists work with breeding, genetics and biotechnology in farm animals as well as bioinformatics and statistics. In Flakkebjerg the scientists work with plant breeding, genetics, biotechnology, physiology and nutrition as well as with agronomy. In Frederiksberg in Copenhagen work is centred around plant biotechnology.

The department has at its disposal modern research laboratories, including a powerful unit for DNA-sequencing. The department also has access to state-of-the-art animal housing facilities, an experimental abattoir, an operating theatre, well-defined herds consisting of cattle, pigs, poultry and mink, and greenhouses and farmland.

Knowledge at work

GBI regards communication of its research results to the international world of research and to the public in general as a very important task. The department supplies research-based teaching, advice, and assistance to the government ministries, and focuses on technology transfer.

Creating future scientists

The department participates actively in teaching in the faculty's bachelor and master programmes.

The department also has an attractive PhD student environment. The PhD students come from the faculty's own PhD school SAFE and other faculties and universities in Denmark and abroad. The department has a quarter of the total number of PhD students at the faculty.





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The Faculty of Agricultural Sciences at Aarhus University carries out research and teaching and provides advice to the authorities in the areas of agricultural science and food science. The Faculty has research activities at centres in Foulum, Aarslev, Flakkebjerg, Sorgenfri and Frederiksberg. In addition, it carries out practical farming activities at five experimental stations.

Read more at www.agrsci.org

“Healthy food for a healthy planet”

For more information about the Department of Genetics and Biotechnology please contact:

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