

Dear friends

On the internet address below you will find announcement of 37 Ph.d. positions at Faculty of Agricultural Sciences, University of Aarhus

Further I have copied the material which include links to the job descriptions.

Please note that there are 3 positions at Department of Horticulture.  
The deadline for application is October 1st.

Please circulate to potential applicants.

[http://www.agrsci.dk/ny\\_navigation/job\\_og\\_uddannelse/jobs/37\\_phd\\_positions\\_in\\_engineering\\_agricultural\\_and\\_natural\\_sciences](http://www.agrsci.dk/ny_navigation/job_og_uddannelse/jobs/37_phd_positions_in_engineering_agricultural_and_natural_sciences)

37 PhD positions in engineering, agricultural and natural sciences

The Faculty of Agricultural Sciences, University of Aarhus, Denmark, is looking for a number of bright and enthusiastic people with a good Master's degree in a relevant natural science or agricultural discipline to fill 37 positions for PhD students. The students will be paid a salary while completing the 3-year PhD education, which mainly consists of PhD courses (about six months) and a project. The positions are placed in one of the seven departments of the faculty.

The positions are placed in one of the seven departments of the faculty:

- **Agricultural Engineering** researches and develops techniques for agriculture with a focus on high technology.
- **Agroecology and Environment** works with agroecology and production management addressed to the advisory service and the primary producer. Furthermore, analyses at the farm, regional and national level addressed to the authorities are made.
- **Animal Health, Welfare and Nutrition** research themes comprise feed composition and quality, animal nutrition, digestion and metabolism of nutrients, growth and lactation physiology, reproduction, immunology, disease mechanisms, bio-markers, disease prevention, animal behavior and adaptability, stress biology, and production and health management including animal production and health economy.
- **Food Science** develops tools and concepts, which can be used to monitor and control the production and handling of plant and animal products so they fulfill the demands of consumers and the food processing industry nationally as well as internationally.
- **Genetics and Biotechnology** researches the underlying molecular, genetic and physiological background for economically important traits in both plants and animals using the most modern techniques including high-capacity sequencing. The department also develops and implements new methods in statistical genetics, biostatistics and bioinformatics.
- **Horticulture** generates new knowledge concerning the production and quality of fruits, vegetables and other plant foodstuffs.

· **Integrated Pest Management** contributes to efficient and environmentally acceptable prevention and control of pests in crop production, animal husbandry, and food processing in the industry, private homes and society in general.

You can read more about the research and PhD education on the website.

The Faculty of Agricultural Sciences has approx. 900 employees, of which approx. half are scientists. The annual turnover is more than 80 million Euros of which more than half come from external grants and industrial contracts.

The Faculty has state-of-the-art laboratories and experimental facilities in centers at Foulum (Central Jutland), Bygholm (Central Jutland), Aarslev (on Funen), Flakkebjerg (on Zealand), and Sorgenfri (Copenhagen) as well as at four experimental stations. Furthermore, a research group is located at the Faculty of Life Sciences, University of Copenhagen.

The Faculty is one of the leading centers for research in agricultural sciences in the world. It is our goal to offer research training at the highest international level both in basic science and in the more applied aspects. Many projects are carried out in collaboration with industrial partners and our scientists often work with projects and ideas that have such a potential that the scientist chooses to patent the idea, sell licenses and even set up a bud-off company.

### **Area of employment and place of work**

The area of employment is the University of Aarhus and the place of work is the Faculty of Agricultural Sciences (depending on the project at Foulum, Flakkebjerg, Aarslev, Bygholm or in Copenhagen). The PhD student will be matriculated at the PhD School at the Faculty of Agricultural Sciences, University of Aarhus.

### **Terms of employment**

The positions will be filled in accordance with the agreement between the Danish Ministry of Finance and the Danish Federation of Professional Associations as well as the appointment structure of 2007 for scientific personnel at universities. The salary for a PhD student is around 3000 Euros/month.

### **Mark Department and project title Place of work**

*Department of Agricultural Engineering*

[DJF 14 Model development for process control during agricultural biomass storage](#) Bygholm

[DJF 27 Mass transfer processes of odorants in aerial boundary layers](#) Bygholm

[DJF 34 Modelling and control of partial slurry pit ventilation](#) Bygholm

[DJF 54 Intelligent behavior for autonomous vehicles in outdoor environments](#) Bygholm

*Department of Agroecology and Environment*

[DJF 3 Reduced emission of greenhouse gases from plant production: Effect of cover crops and soil tillage](#) Foulum

[DJF 10 Microbial methane oxidation in slurry stores: Ecology and impact on agricultural greenhouse gas emissions](#) Foulum

[DJF 17 Bioenergy production and sustainable land use](#) Foulum

[DJF 23 Cooperation in the production chain between producer of organic beef and manufacturing company](#) Foulum

[DJF 30 Sensor-based mapping of carbon stocks of organic soils in Denmark](#) Foulum

*Department of Animal Health, Welfare and Nutrition*

[DJF 2 NMR-based metabonomics as a tool to elucidate changes in biochemical profile of biofluids after consumption of diets with contrasting dietary fibre composition](#) Foulum

[DJF 9 Characterization of the factors influencing the microbial production of reduced sulphur-containing compounds in the gastrointestinal tract of pigs and in fresh slurry](#) Foulum

[DJF 16 Implementing rumen sensors and dynamic modelling in feed evaluation systems for dairy cows](#) Foulum

[DJF 20 Healthy claws on Danish dairy cows](#) Foulum

[DJF 22 Proteomics for identification of biomarkers in relation to mastitis type and rumen acidosis](#) Foulum

[DJF 29 The social needs of calves – how are they best provided for in dairy production?](#) Foulum

[DJF 36 \(extra\) A proteomic-based identification of biomarkers for hepatic lipidosis in cattle and pigs](#) Foulum [DJF 42 \(extra\) Animal health planning and development of health promoting strategies in organic dairy herds](#) Foulum

*Department of Food Science*

[DJF 5 In vitro studies on metabonomic responses to fatty acids](#) Foulum

[DJF 12 Characterization of bioactive compounds in plants with anti-inflammatory effect](#) Aarslev

[DJF 25 Mechanisms responsible for protein oxidation in foods with low water activity](#) Foulum

[DJF 32 Identification of biological marker\(s\) for differentiating meat of high and uniform tenderness](#) Foulum

*Department of Genetics and Biotechnology*

[DJF 1 Characterisation of global genetic variation of complex genomes using Next Generation ultra-high-throughput sequencing](#) Foulum

[DJF 8 Modelling genetic and environmental effects in sensor-based data useful to decision support in dairy herds](#) Foulum

[DJF 15 Bioinformatics and statistical tools for integrated analysis of data from QTL and expression studies](#) Foulum

[DJF 19 Engineering of plants to carry out controlled human O-glycosylation](#) Copenhagen

[DFJ 21 Understanding of combined quality parameters in forage and feed using spectroscopy and multivariate data analysis](#) Flakkebjerg

[DJF 28 Cloning and biochemical characterization of cereal phytases](#) Flakkebjerg

[DJF 35 Characterisation and annotation of genes and sequence variation in genomic regions \(QTL\) affecting disease resistance](#) Foulum

[DJF 100 \(extra\) Gene expression analysis related to obesity, hormonal status and epigenetic change](#) Foulum

#### *Department of Horticulture*

[DJF 6 Effects of catch crops on the content of sulphur \(S\) and selenium \(Se\) in Vegetables](#) Aarslev

[DJF 13 Disease resistance in ornamental plants. Transformation of Aster with mildew resistance genes](#) Aarslev

[DJF 26 The impact of cultivation-induced stress on flavonols in buckwheat as medicinal plants](#) Aarslev

#### *Department of Integrated Pest Management*

[DJF 4 The influence of growing practice on the effect of herbicides](#) Flakkebjerg

[DJF 11 Ecogenomics - DNA barcoding of soil microorganisms](#) Flakkebjerg

[DJF 18 Molecular characterisation of the Fusarium infection biology in wheat](#) Flakkebjerg

[DJF 31 Interaction between microbiology and natural product chemistry in potato plants](#) Flakkebjerg  
[DJF 38 Influence of non-pathogenic root fungi on yield in cereals in relation to fertilization strategies](#) Flakkebjerg

### **Application**

The application must be marked DJF xxx where xxx is a number from 1 to 100 depending on the position, to indicate clearly which PhD position it refers to. It should contain:

- Curriculum vitae incl. information about language skills and computer skills
- Any publications that the applicant might have

- Documentation that the applicant has a Master's degree from a reputable university in a relevant natural science discipline, including information about courses and grades.

You should **either** send a signed PDF-file (one file only!) to [djf@agrsci.dk](mailto:djf@agrsci.dk)

**or** send one signed paper copy to:

University of Aarhus

Faculty of Agricultural Sciences

Faculty Secretariat

Blichers Alle 20

P.O. Box 50

DK-8830 Tjele

Denmark

Should a candidate apply for more than one position, then each application must be submitted separately.

For further information please contact Bo Kjelde at [bo.kjelde@agrsci.dk](mailto:bo.kjelde@agrsci.dk)

**Closing date for applications is 1 October, 2007 at 12:00 noon.**

Det Jordbrugsvidenskabelige Fakultet, Blichers Allé 20, Postboks 50, 8830 Tjele Tel: +45 8999 1900 [E-mail:DJF@agrsci.dk](mailto:DJF@agrsci.dk) CVR-Nummer: 57607556 [EAN-numre](#)

Med venlig hilsen / Regards

**Ole Callesen**

Forskningschef / Research director

**AARHUS UNIVERSITET / UNIVERSITY OF AARHUS**  
**Det Jordbrugsvidenskabelige Fakultet / Faculty of Agricultural**  
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