

Professor in Adaptive Immunology and Vaccinology

DTU Vet at the Technical University of Denmark invites applications for a position as Professor in Adaptive Immunology and Vaccinology.

DTU Vet is a department with the overall mission of contributing to research, development and education within the following scientific areas: immunology, virology, bacteriology, pathology, parasitology and epidemiology.

The professor will be attached to the Section for Immunology and Vaccinology, one of the five sections comprising the Department which presently employs 220 persons.

Responsibilities and tasks

The position covers research and research-based teaching including as general obligations:

- to carry out research within Adaptive Immunology and Vaccinology of production animals
- to secure funding for the research area
- to develop and perform research-based teaching at pre- and postgraduate levels (with associated examination commitments)
- to head and manage research projects to further strengthen and develop the research area
- to secure external collaboration

The position also covers other general duties including being available for innovation and/or public-sector consultancy, to actively pursue scientific exchange with the society at large, to supervise, educate and guide assistant and associate professors and post docs and to participate in academic assessment work, including PhD assessment committees. Also included are existing and future in-house tasks concerning consultancies and contract work on antibody and assay development for other academic institutions and commercial partners.

Specifically, the Professor will hold the responsibility for developing, planning, implementing, leading, supervising and communicating basic and applied research on the adaptive immunology of production animals with special emphasis on host responses to bacterial and viral infections and the development of vaccines and vaccine strategies to combat these infections. This implies teaching relevant courses, supervising young scientists, Ph.D. and undergraduate students and developing and maintaining national and international contacts to other research groups within the area, as well as pursuing industrial contacts and IPR protection and development. The Professor is expected to act as a group manager for 10-20 people (faculty, post docs, scientific assistants, technicians, and students (PhD –, master-, and bachelor-)) covering the scientific disciplines of adaptive immunology, humoral and cell-mediated immune responses and vaccine function and development.

The research should focus on

- Basic studies on the biology of production animal host responses to infection with emphasis on the dynamics of adaptive immune responses and their interplay with infectious agents to develop a further understanding of the role of the adaptive immune cells (T- and B-cells) and their factors in the development of disease vs. the development of disease resistance
- Identification of antigenic and cellular markers as immune correlates of protection aiding the development of vaccines and diagnostics
- Use of the above in the development of new vaccines
- Use of the above in the development of new diagnostic means for early detection of infection, assessing vaccine efficacy and for development of methods for the objective evaluation of animal welfare
- Optimal formulation and adjuvation of vaccines to induce an appropriate protective immune response
- Immunization methods/routes for protecting production animals against disease and for controlling infections

- Studies on animal models to increase basic knowledge on immune regulation at the interface between the adaptive and innate immune systems

The professor is expected to be responsible for development of monoclonal antibodies for internal research and diagnostic use.

Further, the professor is expected to establish synergies between his/her own research and other related research activities at the National Veterinary Institute (infection models, surveillance and diagnostic projects, diagnostic assay developments) and related DTU departments, e.g. in silico methods for epitope prediction, micro and nanoengineering for assay development.

The successful candidate is expected to take a lead position in teaching at the bachelor-, master- and PhD levels.

Research and teaching is coordinated with the other departments at DTU Vet and other DTU departments.

Finally, the Professor should also secure funding for the area and initiate new projects to strengthen the area and to fulfill the veterinary needs at the institute, including expanding and diversifying staff, and keeping methods and equipment up to date as well as developing new methods.

Qualifications

The preferred candidate has a broad and interdisciplinary background including thorough knowledge of immunology, vaccinology, animal health and knowledge of veterinary relevant infections, vaccines and diagnostics. The candidate should have outstanding scientific qualifications at international level and a proven record of scientific achievements and must be internationally recognized in his/her field as evidenced through international collaborations and authorships.

Good project management and collaboration skills as well as the ability to inspire, motivate and supervise across scientific disciplines are essential.

A proven fund raising record and a good publication rate are also important.

The applicant must have teaching and supervision experience at all levels.

Notable achievements will be expected within research/innovation and research-related leadership, and generally achievements in extension of the qualifications stipulated for the position, which are:

- Extensive original scientific output at international level being instrumental in advancement of the research area
- Documented and successful teaching experience at different levels within University study programmes, including, notably at PhD level.
- Documented experience of at least one of the following fields:
 - Research leadership, including attending to leadership tasks in national or international projects, research programmes, conferences, etc.
 - Innovation, including the advancement of patent areas, the application of research results in commercial contexts, etc.
- Documented fund-raising record
- Organization of international workshops and conferences

Assessment

In the assessment of the candidates consideration will be given to

- the ability to teach
- scientific production at international level, research potential and ability to lead and develop a research team
- the ability to promote and utilize research results
- experience with innovation activities
- an all-round experience basis, including international experience

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- the ability to contribute to the development of the Department's internal and external cooperation
- track record in attracting funding to the research area
- visions within the research area

Salary and terms of employment

The appointment will be based on the collective agreement with the Confederation of Professional Associations. The allowance will be agreed with the relevant union.

Further information

Further information may be obtained from Head of Department Kristian Moller, +45 35886189.

You can read more about The National veterinary Institute on www.vet.dtu.dk.

Application procedure:

We must have your online application by **XXX 2014**.

Applications must be submitted as **one pdf file** containing all materials to be given consideration. To apply, please open the link "Apply online," fill in the online application form, and attach **all your materials in English in one pdf file**. The file must include:

- Application (cover letter) addressed to the President
- CV
- List of publications indicating scientific highlights
- Documentation of teaching experience
- A plan for future research

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.