Rikke Brødsgaard Kjærup
Postdoc, AC-TAP
Inst. for Husdyr- og Veterinærvidenskab
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Education

2008 Cand. Scient (M.Sc.). in Engineering in Biotechnology, Aalborg University, DK Master thesis: The role of transcript elongation factors in plant development. Supervisor: Klaus D. Grasser, Department of Life Sciences, Section of Biotechnology, Aalborg University

2013 Ph.D. degree obtained in animal science, Institute of Animal Health and Bioscience, Faculty of Agricultural Sciences, Aarhus University

Employment

2008-2009 Research Assistant, Institute of Animal Health and Bioscience, Faculty of Agricultural Sciences, Aarhus University

2009-2013 Ph.D. study at the Department of Animal Science, Faculty of Science and Technology, Aarhus University

2011-2012 Maternity leave (June-March)

2013 Ph.D. degree obtained

2013-2014 Research Assistant, Department of Animal Science, Faculty of Science and Technology, Aarhus University

2014-2015 Postdoc, Department of Animal Science, Faculty of Science and Technology, Aarhus University

2015 Maternity leave (February-November)

2015-2019 Postdoc, Department of Animal Science, Faculty of Science and Technology, Aarhus University

2019- Academic employee, Department of Animal and Veterinary Sciences, Faculty of Science and Technology, Aarhus University

Research

I have conducted research within immunology in the mink, pig and chicken with especially focus on the pattern recognition molecules such as the proteins mannose binding lectin

(MBL), ficolins (FCN) and other collectins. In the mink and pig, the influence of nutrition on the health status, including the influence on the different pattern recognition molecules, have also been assessed. I am experienced in sequencing, SNP genotyping, various direct detection methods for immunological parameters (e.g. antibody ELISA and flow cytometry), virus work (especially IBV and ADV), cell culture work (incl. establishing in vitro models), and planning and conducting animal experiments. I have a strong background in conventional techniques for quantification and characterization of genes and their expressions (e.g. qPCR and transcription efficiency assays). For the moment I am working on among others in the BIOACT project (https://icoel.dk/om-os/projekter/organic-rdd/2023/bioact-bioactive-antiparasitic-plant-compounds-for-in-feed-administration-to-organic-egg-laying-hens/) and the European Partnership on Animal Health and Welfare (https://pure.au.dk/portal/da/projects/european-partnership-on-animal-health-and-welfare).

2008-2009 Mapping of transcriptional regulatory elements of chicken Mannose-Binding Lectin (MBL) promoter (participant, granted by Glud's legat)

2008-2009 Refining genotypes and Phenotypes - EADGENE (participant, granted by EU - Food-CT- 2004-506416)

2009-2013 The functional effect of Mannose-Binding Lectin (MBL) on susceptibility to Infectious Bronchitis in chickens (participant, granted by The Danish Poultry Council)

2010-2015 POLY-REID - Development of genetic selection technology for polyvalent resistance to infectious diseases (participant, granted by the Danish Council for Strategic Research)

2015-2016 Protein and mineral content in the feed and health in mink (Project leader, granted by Pelsdyrafgiftsfonden)

2017 Vitamins and minerals – The effect on the immune system in mink (Project leader, granted by Pelsdyrafgiftsfonden)

2017 Inactivation of Aleutian Mink Disease Virus (Project leader, granted by Pelsdyrafgiftsfonden)

2017-2019 Synthetic carbohydrates with broad targeting of avian C-type lectin receptors as a novel tool for sustainable control of pathogens with zoonotic potential (SYN-CARB) (participant, granted by the Independent Research Fund Denmark)

2018 Fe supplementation to mink kits within the first week of age and the effect on iron status, growth, and health (participant, granted by Dansk Pelsdyravlerforenings Forskningsfond)

2020-2024 Poultry and Pig Low-input and Organic production systems' Welfare (Ppilow) (participant, granted by Horizon 2020)

2021-2023 Ablacto+: Biotechnological fight against post-weaning diarrhea (participant, granted by GUDP)

2022 - now Reducing methane emissions and improving growth performance and health with a novel enzyme applied to swine (Methenzwine) (participant, granted by Innovation Fund Denmark)

2023 - now BIOACT - Bioactive antiparasitic plant compounds for in-feed administration to organic egg laying hens (participant, granted by ICROFS Organic RDD)

2023 - now YeastHealth – Fra restprodukt til funktionel ingrediens i smågrisefoder (participant, granted by GUDP)

2024 GalliClear – kontrol af spoleorm i høns (participant, granted by fjerkræafgiftsfonden)

2024 - now EUPAHW: European Partnership on Animal Health and Welfare (participant)

Teaching

2009 Involved in Scientist for a day at the Department of Animal Science, Faculty of Science and Technology, Aarhus University (teaching High School students)

2010-2013 Involved in Brokom (ELISA) at the Department of Animal Science, Faculty of Science and Technology, Aarhus University (teaching High School students)

2012 Oral presentation at Agromek, Herning, Denmark. November 29th, "Gene variants – Improving robustness in chickens"

2013 Oral presentation at PolyReid annual meeting, Foulum, Denmark, February 6th

2013 Assistant teacher in Immunology (Agrobiology Bachelor students), Aarhus University

2013 Teaching of Bachelor students in immunology at Vejlby Agricultural Education Center

2016 Teaching of Bachelor students in mink anatomy, practical exercise (Agrobiology students), Aarhus University

2017/2018 Teaching of Bachelor students in mink anatomy, practical exercise, and lecture (Agrobiology students), Aarhus University

2018/2019 Teaching of Master students in immunology and mink diseases (Agrobiology students), Aarhus University

2020- Teaching of Bachelor students in carnivore anatomy and physiology, (Agrobiology students), Aarhus University

2020- Teaching of Master students in immunology (Agrobiology students), Aarhus University

2025- Teaching of Bachelor students in immunology and carnivore anatomy and physiology (Animal science students), Aarhus University

2025- Teaching of Bachelor students in immunology (Veterinary medicin students), Aarhus University

Attended courses:

2009 Study of resistance mechanisms in animal infectious diseases, March 16th to 20th at the University of Liege, Belgium. Coursed offered by EADGENE.

2009 TATAA open qPCR course, October 5th to 9th at TATAA Biocenter, Gothenburg, Sweden. Course offered by TATAA Biocenter.

2009 Meetings & Negotiations - tools for researchers, December 1st at Aarhus University, Denmark. Course offered by FOOD workshop, University of Copenhagen.

2009 Introduction course for PhD students at DJF November 10th-11th at Aarhus University, Denmark. Course offered by PhD School at Faculty of Science and Technology, Aarhus University.

2010 Laboratory Animal Science, January 18th to 22nd at Aarhus University, Denmark. Course offered by Graduate School of Health Sciences, Aarhus University.

2010 Flow Cytometry and Cell Sorting, May 5th to 7th at the University of Southern Denmark, Denmark. Course offered by Danish Stem Cell Research Doctoral School – DASDOC.

2010 Medical Microbiology and Immunology, January 25th to June 10th at Aarhus University, Denmark. Course offered by Department of Medical Microbiology and Immunology, Faculty of Health Sciences, Aarhus University.

2010 Biostatistics, September to December at Aalborg University, Denmark, Course offered by Faculty of Engineering and Science, Aalborg University.

2012 Targeting the Audience: Teaching science to young people, April 22nd to May 11th, at Aarhus University, Denmark. Course offered by Graduate School of Science and Technology, Aarhus University.

2012-2013 Karriereudviklingsprogram for ph.d.-studerende, September to January at Aarhus University, Denmark. Course offered by the University of Southern Denmark.

2012 Scientific English presentation November at Aarhus University, Denmark. Course offered by Graduate School of Health Sciences, Aarhus University.

2013 Innate and Adaptive Immunity – Cutting Edge, Copenhagen, Denmark. Course

offered by Copenhagen Graduate School of Health Sciences, University of Copenhagen.

2017 Projektlederuddannelsen, Aarhus, Denmark. Course offered by Aarhus University and taught by Rambøll Management Consulting.

2018 Adjunktkursus – Universitetspædagogik for adjunkter og Post Docs på Aarhus Universitet, Aarhus, Denmark. Course offered by Aarhus University.

2022 Course in Research-based public sector consultancy, Aarhus, Denmark. Course offered by Aarhus University.

2023 Introduction to multi-dimensional flow cytometry analyses, Geneva, Switzerland. Course offered by the Swiss Flow cytometry School, Geneva University Hospital.