

## Kristian Moller



My scientific background is diagnostic and molecular bacteriology. The work has focused on important porcine bacterial pathogens. The PhD thesis comprised V factor dependent Pasteurellaceae in pigs and included taxonomical, ecological and epidemiological studies on porcine Actinobacilli, including *A. pleuropneumoniae*, the causative agent of porcine pleuropneumonia. As researcher I have been responsible for several research projects related to development of molecular diagnostic tests, gastrointestinal health and alternatives to antimicrobials. After the PhD study, I focused on development of detection and typing methods for bacterial pathogens associated with the porcine intestines: *Clostridium perfringens*, *Brachyspira hyodysenteriae*, *Brachyspira pilosicoli* and *Lawsonia intracellularis*. The work also included pathological and epidemiological studies. Other studies focused on the development of alternatives to antibiotic growth promoters for use in broilers and pigs. The examination included different feeding strategies for their beneficial effect on the gastrointestinal micro flora in the promotion of growth and health of slaughter pigs. To study the effect of various feeding strategies on the colonisation of pathogens known to cause diarrhoea in slaughter pigs infection models were developed. Focus has also been on the development of molecular methods to study the intestinal microbiota, to get insight in interactions between feed/feeding strategies and gut health.

I have since 2001 coordinated collaboration activities between the national veterinary laboratories in Denmark, UK, Sweden, the Netherlands, and France. The collaboration includes sharing of knowledge, biologicals and infrastructure, and management of joint research projects.

Since 2005 I have been the official DK member of Standing Committee on Agricultural Research (SCAR), Animal Health Collaborating Working Group. The activities include coordination of research activities on animal health and animal welfare, incl zoonoses and wild life diseases in EU. The group has conducted foresight exercises with the objective and ambition to explore possible future scenarios for animal infections including zoonoses and antimicrobial resistance to provide guidance to Member States, the Commission and policy makers on research priorities. Furthermore, SCAR cwg has initiated several large projects funded by EU on emerging animal diseases, zoonoses, One Health, antimicrobial resistance, wild life diseases, production based diseases and animal welfare. Examples of programmes are the establishment of ERA-Net on emerging animal infectious diseases (EMIDA), ERA-Net on animal health and welfare (ANIHWA), Global Strategic Alliances for the Coordination of Research on the Major Infectious Diseases of Animals and Zoonoses (STAR-IDAZ) and Era-Net on Sustainable Agriculture Production, with a total of more than 50 joint projects and a budget at approx. 230 mio. DKK.

A part of the activities of the Era-Nets includes mapping of existing research activities and analysis of research gaps. Among several tasks, I managed the development of a gap analysis methodology which included close collaboration with relevant actors, e.g. the industry, authorities, scientific community and NGO's.