

### **CURRICULUM VITAE - MARGIT BAK JENSEN**

### **EDUCATION**

1990	Candidata Agronomiae (Cand. agro.) The Royal Veterinary and Agricultural University of Denmark
1991	Master of Science (M.Sc.) in Applied Animal Behaviour and Animal Welfare, University of
	Edinburgh, Scotland
1996	Ph D in Ethology The Royal Veterinary and Agricultural University Denmark

### **POSITIONS**

- 1996-1998: Scientist, Danish Institute of Agricultural Sciences, Dep. of Animal Health and Welfare
- 1998-2006: Senior Scientist, Danish Institute of Agricultural Sciences, Dep. of Animal Health and Welfare
- 2007-2021: Senior Scientist, Aarhus University, Department of Animal Science
- Since 2021: Professor, Aarhus University, Department of Animal and Veterinary Sciences

## PROJECT MANAGEMENT

- 1998-2002: "Quantification of biological needs in farm animals, development and validation of methods using operant conditioning techniques" funded by The Danish Ministry of Food, Agriculture and Fisheries.
- 2000-2004: "Improved automatic milk feeding of calves in groups" funded by The National Committee on Danish Cattle Husbandry.
- 2003-2006: "Behaviour and welfare of dairy cattle housed in large groups" funded by The Nordic Joint Committee for Agricultural Research and the Danish Ministry of Food, Agriculture and Fisheries.
- 2003-2006: "Rooting materials for growing pigs: welfare and practical solutions", Innovation and research project funded by the Danish Ministry of Food, Agriculture and Fisheries.
- 2007-2009: "Development of a system for monitoring calf health", The Food Research Program 2006 funded by Danish Ministry of Food, Agriculture and Fisheries.
- 2009-2012: "Welfare of dairy cattle around calving", The Food Research Program 2008, funded by Danish Ministry of Food, Agriculture and Fisheries.
- 2013-2014: "Use of hospital pens and quantification of lame cows' needs in relation to animal welfare" funded by The Danish Centre for Animal Welfare, The Danish Veterinary and Food Administration.
- 2013-2014: "Pigs' need for access to water during the night". Research project commissioned by the Danish Ministry of Food, Agriculture and Fisheries.
- 2014-2018: "The self-guided cow" funded by the Green Development and Demonstration Programme, the Danish Ministry of Food, Agriculture and Fisheries. Copenhagen, Denmark.
- 2019-2020: "Calving facilities in Denmark, Europe and Nord Amerika review and survey", funded by The Danish Centre for Animal Welfare, The Danish Veterinary and Food Administration.
- 2020-2024: "Can dairy cows have the best of both worlds, positive emotional states rearing their calf and subsequent stress-less separation?", funded by the Independent Research Fund Denmark, Technology and Production.
- 2022-2026: Cost Action 21124: "Lifting farm animal lives laying the foundations for positive animal welfare (LIFT), The European Union (Horizon Europe). Chair of Action (355 members from 44 countries).
- 2024-2026: "Assessment of positive welfare; defining animal-based measures". Joint internal project of the European Partnership on Animal Health and Welfare funded by European Commission. Chair of joint internal project (22 partners).
- 2025-2026: "Use of water in grazing cattle during the summer" Research project funded by the Danish Ministry of Food, Agriculture and Fisheries.
- 2025-2029: "How does methane-reducing feed affect dairy cows' behaviour?". Research project funded by the Danish Ministry of Food, Agriculture and Fisheries.

### SCIENTIFIC FOCUS AREA

One research focus is the development and validation of methods to quantify animal motivation and behavioural needs in farm animals, and methods have been applied to answer current questions in relation to animal welfare in farm animal. Research in dairy calves includes effects of housing and management on behaviour and welfare. This research shows that social housing reduces calves' responsiveness to stress, increase their social skills and stimulate intake of solid food. It has also provided solutions to challenges of group housing of calves by developing milk feeding methods that minimise competition and prevent abnormal cross-sucking behaviour. Research in dairy cows includes design of calving pens based on cows' natural behaviour to improve their welfare and ease farmers' management, design of hospital pens that accommodates the special needs of injured and sick cows, as well as housing and management of cow-calf-systems to ensure benefits of maternal bonding and care, while minimising the separation stress at weaning. Research also includes studies on animal welfare effects of milk allowance offered to pre-weaned dairy calves, as well as diets low energy density offered to dairy cows at dry-off. Focussing on cow welfare around dry-off, we also investigated effects of a pharmacological agent to aid cessation of milk synthesis at dry-off and found that injection of the pharmacological agent led to behavioural changes similar to sickness behaviour. Research on pigs includes studies of the motivation controlling exploratory and feeding behaviour to identify causes of abnormal behaviour and to identify appropriate environmental enrichment. Current research on positive animal welfare investigates how housing and management that promotes positive experiences can contribute to a good animal life. Current research on potential effects of methane-reducing feeding on dairy cow welfare investigates if this feeding causes behavioural signs of discomfort and aversion.

### POSITIONS OF TRUST

Member of the working group regarding dairy cattle by the Danish Ministry of Justice (2007-2009)

Elected Nordic secretary of the International Society for Applied Ethology (ISAE; 2005-2010)

Elected member of ISAE Council and Senior Editor of ISAE (2013-2017)

Chair of organising and scientific committees of the ISAE international conference, Aarhus Aug. 2017

Member of Working Group on Protection of calves, The European Food Safety Authority (EFSA; 2020-2023)

Member of Working Group on the Protection of dairy cows, EFSA (2021-2023)

Member of scientific working group on nature-national-parks by Danish Ministry of Environment (Since 2021)

# SCIENTIFIC PUBLICATIONS

I have 145 peer-reviewed papers in scientific journals, 4 book chapters, 94 peer-reviewed abstracts in international conference proceedings, and several non-refereed abstracts, reports, and popular publications. Hindex: 42 (Web of Science core collection), 50 (Google scholar). A selection of publications is given below.

- **Jensen, M. B.**, Vestergaard, K. S., & Krohn, C. C. (1998). Play behaviour in domestic calves kept in pens: The effect of social contact and space allowance. Applied Animal Behaviour Science, 56(2–3), 97–108.
- **Jensen, M. B.**, Munksgaard, L., Pedersen, L. J., Ladewig, J., & Matthews, L. (2004). Prior deprivation and reward duration affect the demand function for rest in dairy heifers. Applied Animal Behaviour Science, 88(1–2), 1–11.
- **Jensen, M. B.**, Franchi, G. A., Larsen, M., Foldager, L., & Herskin, M. S. (2023). Effects of feed energy density, daily milking frequency and a single injection of cabergoline on behavior and welfare in dairy cows at dry-off. Journal of Dairy Science, 106(12), 9136–9149.
- Jensen, E. H., Bateson, M., Neave, H. W., Rault, J.-L., & Jensen, M. B. (2024). Dairy cows' motivation to nurse their calves. Scientific Reports, 14(1), 13728.
- Miller-Cushon, E. K., & **Jensen, M. B**. (2025). Invited review: Social housing of dairy calves—Management factors affecting calf behavior, performance, and health; A systematic review. Journal of Dairy Science, 108(5), 3019–3044.
- Neave, H. W., Rault, J.-L., Bateson, M., Jensen, E. H., & **Jensen, M. B.** (2024). Assessing the emotional states of dairy cows housed with or without their calves. Journal of Dairy Science, 107(2), 1085–1101.
- Rault, J.-L., Bateson, M., Boissy, A., Forkman, B., Grinde, B., Gygax, L., Harfeld, J. L., Hintze, S., Keeling, L. J., Kostal, L., Lawrence, A. B., Mendl, M. T., Miele, M., Newberry, R. C., Sandøe, P., Špinka, M., Taylor, A. H., Whalin, L., Webb, L. E., & Jensen, M. B. (2025). A consensus on the definition of positive animal welfare. Biology Letters, 21(6).
- Tucker, C. B., **Jensen, M. B.**, de Passillé, A. M., Hänninen, L., & Rushen, J. (2021). Lying time and the welfare of dairy cows: A review. Journal of Dairy Science, 104(1), 20–46.