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Web of Science: 24
Google Scholar: 27
Scopus: 26

Degrees

1998: PhD (Food Chemistry), The Royal Veterinary and Agricultural University Frederiksberg C, Denmark. Title: "Antioxidative status in pigs and chickens following dietary alterations, with emphasis on skeletal muscles"

1994: M.Sc. (Animal Nutrition), The Royal Veterinary and Agricultural University Frederiksberg C, Denmark. Title: "The influence of dietary synthetic antioxidants (ethoxyquin and butylhydroxytoluene) on broilers."

Positions

2018-: Professor in nutritional immunology, Dept. of Animal Science, Faculty of Science and Technology, Aarhus University.

2012-: Head of Research section for Immunology and Microbiology, Dept. of Animal Science, Faculty of Science and Technology, Aarhus University.

2007-2017: Senior Scientist, Animal Science, Aarhus University.

2001-2006: Senior Scientist, Danish Institute of Agricultural Sciences, Dept. Animal Health, Welfare and Nutrition.

1998-2001: Scientist, Danish Institute of Agricultural Sciences, Dept. Animal Health, Welfare and Nutrition.

1995-1998: PhD student, Danish Institute of Agricultural Sciences, Dept. of Product Quality

1994-1995: Research training fellow, Department of Nutrition, University College Cork, Ireland.

Maternity leave: 6 months (2007) and 6.5 months (2010)

Research training abroad

2007-2008: Div. of Veterinary Pathology, Infection and Immunity, School of Clinical Veterinary Science, Bristol University, UK, 7 months. Immunohistochemistry.

1999: Linus Pauling Institute, Oregon State University, Oregon, USA, 8 months. Bioavailability of stereochemical forms of vitamin E using LC/MS/MS.

1994-1995: University College Cork, Ireland. Oxidative reactions in meat and cell membranes.

Research profile (most focus on pigs)

- Nutritional immunology and infection biology
- Animal models for humans
- Basic and applied lipid nutrition
- Vitamins (major focus on vitamin A, D, E, and C) and antioxidants
- Fatty acids (major focus on n-6 and n-3), eicosanoids and inflammatory markers

Boards

2015-: Vitamin Advisory Board, DSM

2013-2016: President of the Pig Commission of EAAP

List of publications

Publications (last five years)

A plant-based diet is feasible in patients with Crohn's disease. / Arvidsson, Line Birch; Lærke, Helle Nygaard; Lauridsen, Charlotte et al.

In: Clinical Nutrition ESPEN, Vol. 64, 12.2024, p. 28-36.

Modulating the gut microbiota in Crohn's disease: a pilot study on the impact of a plant-based diet with DNA-based monitoring. / Østergaard, Stine Karstenskov; Cetin, Zeynep; Rasmussen, Henrik Højgaard et al.

In: Frontiers in Nutrition, Vol. 11, 1502967, 31.10.2024.

Redox balance and immunity of piglets pre- and post-E. coli challenge after treatment with hemp or fish oil, and vitamin E. / Madsen, Pernille Aagaard; Jensen, Søren Krogh; Lauridsen, Charlotte.

In: Scientific Reports, Vol. 14, No. 1, 11053, 14.05.2024.

Composition of mucus- and digesta-associated bacteria in growing pigs with and without diarrhea differed according to the presence of colonic inflammation. / M. Panah, Farhad; Lauridsen, Charlotte; Højberg, Ole et al.

In: BMC Microbiology, Vol. 23, No. 1, 145, 12.2023.

The influence of supplementary feeding during suckling and later weaning on growth performance, incidences of post-weaning diarrhoea and immunity of piglets. / Vodolazs'ka, Dar'ya ; Feyera, T.; Foldager, L. et al.

In: Livestock Science, Vol. 276, 105321, 10.2023.

Impact of liquid diet supplementation while suckling and weaning age on nutritional status, intestinal health, and immunity of piglets pre- and post-weaning. / Vodolazs'ka, Dar'ya ; Hedemann, Mette Skou; Lauridsen, Charlotte.

In: Journal of Animal Science, Vol. 101, skad231, 07.2023.

Liquid fermented cereals with added *Pediococcus acidilactici* did not reduce post-weaning diarrhea in pigs – an *Escherichia coli* challenge study. / Xu, Jiajia; Noel, Samantha Joan; Lauridsen, Charlotte et al.

In: Frontiers in Veterinary Science, Vol. 10, 1147165, 05.2023.

The impact of birth weight, birth order, birth asphyxia, and colostrum intake per se on growth and immunity of the suckling piglets. / Vodolazs'ka, Dar'ya ; Feyera, T.; Lauridsen, C.

In: Scientific Reports, Vol. 13, No. 1, 8057, 05.2023.

A westernized diet changed the colonic bacterial composition and metabolite concentration in a dextran sulfate sodium pig model for ulcerative colitis. / M. Panah, Farhad; Nielsen, Katrine D.; Simpson, Gavin et al.

In: Frontiers in Microbiology, Vol. 14, 1018242, 04.2023.

Impact of dietary fat levels and fatty acid composition on milk fat synthesis in sows at peak lactation. / Zhe, L; Krogh, Uffe; Lauridsen, Charlotte et al.

In: Journal of Animal Science and Biotechnology, Vol. 14, No. 1, 42, 03.2023.

Influence of vitamin D metabolites on vitamin D status, immunity and gut health of piglets. / Madsen, Pernille Aagaard; Etheve, Stephane; Heegaard, Peter M H et al.

In: Veterinary Immunology and Immunopathology, Vol. 257, 110557, 03.2023.

Impact of early inoculation of probiotics to suckling piglets on postweaning diarrhoea – A challenge study with Enterotoxigenic *E. Coli* F18. / Hansen, L. H.B.; Lauridsen, C.; Nielsen, B. et al.

In: Animal, Vol. 16, No. 11, 100667, 11.2022.

Dietary proanthocyanidins promote localized antioxidant responses in porcine pulmonary and gastrointestinal tissues during *Ascaris suum*-induced type 2 inflammation. / Andersen-Civil, Audrey Inge Schytz; Myhill, Laura J.; Büdeyri Gökgöz, Nilay et al.

In: FASEB Journal, Vol. 36, No. 4, e22256, 04.2022.

Orally active bivalent V_HH construct prevents proliferation of F4⁺ enterotoxigenic Escherichia coli in weaned piglets. / Fiil, Berthe Katrine; Thrane, Sandra Wingaard; Pichler, Michael et al.
In: iScience, Vol. 25, No. 4, 104003, 04.2022.

Non-targeted metabolomics of saliva to explore potential biomarkers for gastric ulceration in pigs fed hemp. / Madsen, P.A.; Curtasu, M.V.; Canibe, N. et al.
In: Animal, Vol. 16, No. 3, 100477, 03.2022.

Depletion and enrichment of phytosterols in soybean oil lipid emulsions directly associate with serum markers of cholestasis in preterm parenteral nutrition-fed pigs. / Guthrie, Gregory; Stoll, Barbara; Chacko, Shaji et al.
In: Journal of Parenteral and Enteral Nutrition, Vol. 46, No. 1, 01.2022, p. 160-171.

Improving gut function in pigs to prevent dysbiosis and post-weaning diarrhea. / Lauridsen, Charlotte; Hojberg, Ole; Canibe, Nuria.
Understanding gut microbiomes as targets for improving pig gut health. ed. / Mick Bailey; Chris Stokes. Burleigh Dodds Science Publishing, 2022. (Burleigh Dodds Series in Agricultural Science; No. 103).

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In: F E M S Microbiology Letters, Vol. 368, No. 7, fnab045, 01.04.2021.

Effect of Maternal Dietary Redox Levels on Antioxidative Status and Immunity of the Suckling Off-Spring. / Lauridsen, Charlotte; Schönherz, Anna A.; Højsgaard, Søren.
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In: International Immunopharmacology, Vol. 84, 106569, 07.2020.

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Rifampicin, not vitamin E, suppresses parenteral nutrition-associated liver disease development through the pregnane X receptor pathway in piglets. / Guthrie, Gregory; Stoll, Barbara; Chacko, Shaji et al.
In: American Journal of Physiology: Gastrointestinal and Liver Physiology, Vol. 318, No. 1, 2020, p. G41-G52.

From oxidative stress to inflammation: redox balance and immune system. / Lauridsen, Charlotte.
In: Poultry Science, Vol. 98, No. 10, 10.2019, p. 4240-4246.

Targeting gut microbiota and barrier function with prebiotics to alleviate autoimmune manifestations in NOD mice. / Hansen, Camilla H.F.; Larsen, Christian S.; Petersson, Henriette O. et al.
In: Diabetologia, Vol. 62, No. 9, 09.2019, p. 1689-1700.

Preterm Birth Has Effects on Gut Colonization in Piglets Within the First 4 Weeks of Life. / Kamal, Shamrulazhar Shamzir; Andersen, Anders Daniel; Krych, Lukasz et al.
In: Journal of Pediatric Gastroenterology and Nutrition, Vol. 68, No. 5, 2019, p. 727-733.

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In: PLOS ONE, Vol. 13, No. 11, e0207382, 11.2018, p. e0207382.

Effects of alpha-(1,2)-fucosyltransferase genotype variants on plasma metabolome, immune responses and gastrointestinal bacterial enumeration of pigs pre- and postweaning. / Poulsen, Ann Sofie Riis; Luise, Diana; Curtasu, Mihai Victor et al.
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In: Archives of Animal Nutrition, Vol. 72, No. 3, 04.05.2018, p. 205-220.

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Influence of silver nanoparticles on growth and health of broiler chickens after infection with *Campylobacter jejuni*. / Vadalasetty, Krishna Prasad; Lauridsen, Charlotte; Engberg, Ricarda Margarete et al.
In: B M C Veterinary Research, Vol. 14, No. 1, 02.01.2018.

Gut microbiota composition may relate to weight loss rate in obese pet dogs. / Kieler, Ida Nordang; Kamal, Shamrulazhar; Vitger, Anne Désiré et al.
In: Veterinary Medicine and Science, Vol. 3, No. 4, 01.11.2017, p. 252-262.

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Supplementation with *Lactobacillus paracasei* or *Pediococcus pentosaceus* does not prevent diarrhea in neonatal pigs infected with *Escherichia coli* F18. / Andersen, A D; Cilieborg, Malene Skovsted; Lauridsen, Charlotte et al.
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Pasteurization Procedures for Donor Human Milk Affect Body Growth, Intestinal Structure, and Resistance against Bacterial Infections in Preterm Pigs. / Li, Yanqi; Duc Ninh Nguyen; de Waard, Marita et al.
In: Journal of Nutrition, Vol. 147, No. 6, 01.06.2017, p. 1121-1130.

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In: Journal of Animal Science, Vol. 95, No. 5, 05.2017, p. 2097-2110.

The microbial community of the gut differs between piglets fed sow milk, milk replacer or bovine colostrum. / Poulsen, Ann-Sofie Riis; de Jonge, Nadiyah; Sugiharto, Sugiharto et al.
In: British Journal of Nutrition, Vol. 117, No. 7, 14.04.2017, p. 964-978.

Purified natural pig immunoglobulins can substitute dietary zinc in reducing piglet post weaning diarrhoea. / Hedegaard, Chris Juul; Lauridsen, Charlotte; Hedegaard, Peter M H.
In: Veterinary Immunology and Immunopathology, Vol. 186, 04.2017, p. 9-14.

Vitamin E plasma kinetics in swine show low bioavailability and short half-life of all-rac- α -tocopheryl acetate^{1,2}. / van Kempen, T A T G; Reijersen, M H ; de Bruijn, C et al.
In: Journal of Animal Science, Vol. 94, No. 10, 10.2016, p. 4188-4195.

Multi-omic profiles of hepatic metabolism in TPN-fed preterm pigs administered new generation lipid emulsions. / Guthrie, Gregory; Kulkarni, Madhulika; Vlaardingerbroek, Hester et al.
In: Journal of Lipid Research, Vol. 57, No. 9, 09.2016, p. 1696-1711.

Vitamin E in new Generation Lipid Emulsions Protects Against Parenteral Nutrition-Associated Liver disease in Parenteral Nutrition-Fed Preterm Pigs. / Kenneth, Ng; Stoll, Barbara; Chacko, Shaji et al.
In: Journal of Parenteral and Enteral Nutrition, Vol. 40, No. 5, 01.07.2016, p. 656-671.

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In: American Journal of Physiology: Gastrointestinal and Liver Physiology, Vol. 310, No. 5, 01.03.2016, p. G323-G333.

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In: Organic Agriculture - Official journal of The International Society of Organic Agriculture Research, Vol. 6, No. 1, 01.03.2016, p. 31-47.

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In: British Journal of Nutrition, Vol. 113, No. 6, 2015, p. 923-934.

Influence of genotype and feeding strategy on pig performance, plasma concentrations of micro nutrients, immune responses and faecal microbiota composition of growing-finishing pigs in a forage-based system. / Kongsted, Anne Grete; Nørgaard, Jan Værum; Jensen, Søren Krogh et al.
In: Livestock Science, Vol. 178, 2015, p. 263-271.

Prevention of enterotoxigenic *Escherichia coli* infections in pigs by dairy-based nutrition. / Sugiharto, Sugiharto; Jensen, Bent Borg; Jensen, Karin Hjelholt et al.
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Neonatal piglet survival: impact of sow nutrition around parturition on fetal glycogen deposition and production and composition of colostrum and transient milk. / Theil, Peter Kappel; Lauridsen, Charlotte; Quesnel, H.
In: Animal, Vol. 8, No. 7, 07.2014, p. 1021-1030.

Plasma metabolomic profiles and immune responses of piglets after weaning and challenge with *E. coli*. / Sugiharto, Sugiharto; Hedemann, Mette Skou; Lauridsen, Charlotte.
In: Journal of Animal Science and Biotechnology, Vol. 5, 17, 14.03.2014, p. 1-8.

Effects of oral micellized natural vitamin E (D- α -tocopherol) v. synthetic vitamin E (DL- α -tocopherol) in feed on α -tocopherol levels, stereoisomer distribution, oxidative stress and the immune response in piglets. / Amazan, D; Cordero, G; López-Bote, C J et al.
In: Animal, Vol. 8, No. 3, 03.2014, p. 410-419.

Triennial Growth Symposium - Establishment of the 2012 vitamin D requirements in swine with focus on dietary forms and levels of vitamin D³. / Lauridsen, Charlotte.
In: Journal of Animal Science, Vol. 92, No. 3, 03.2014, p. 910-916.

Comparison of casein and whey in diets on performance, immune responses and metabolomic profile of weaning pigs challenged with *E.coli* F4. / Sugiharto, Sugiharto; Jensen, Bent Borg; Hedemann, Mette Skou et al.
In: Canadian Journal of Animal Science, Vol. 94, No. 3, 2014, p. 479-491.