

## Søren Krogh JENSEN

**Home address:** Vibækvej 33, Bruunshåb, 8800 Viborg,  
Born 2. December 1959

**Working place:** University of Aarhus, Faculty of Agricultural Sciences (DJF),  
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### Degrees:

1991 Ph.D. (Biochemistry), The Royal Vet. Agric. Univ., Denmark (KVL,  
Today KU-LIFE)  
1987 Ms Sci. (cand.agro.), KVL

### Employment:

1995- Senior Scientist, Department of Animal Health, Welfare and Nutrition,  
DJF  
1991-95 Research Scientist, Department of Animal Nutrition and Physiology,  
DJF  
1991-88 Ph.D. student Dep. Chemistry, KVL/ Novo Nordisk A/S  
1987 Teaching Assistant, Dep. Chemistry, KVL

### Competence and Field of work

His Ph. D. project comprised studies with evaluation of the nutritive value of rapeseed products obtained by aqueous enzymatic extraction of rapeseed. Since 1991 he has worked at Faculty of Agricultural Sciences (DJF) (Former: Danish Institute of Agricultural Sciences) with research within animal nutrition with special emphasis on fat soluble vitamins, antioxidants, lipids and lipid oxidation in relation to nutrition, animal product quality and animal health. Special attention has been paid to biochemical and physiological aspects the importance of fat, fatty acids, fat-soluble vitamins (including their antioxidative properties), as well as the physiological importance of anti-nutrients in rapeseed and legumes. During the last years he has been involved in projects related to utilisation of naturally occurring vitamins in plants by pigs and cattle – also in relation to organic farming. Special focus is on elucidating the difference in the biological value of natural versus synthetic vitamins. In this connection relatively simple and fast methods capable of separating stereoisomers of  $\alpha$ -tocopherol has been implemented based on chiral HPLC. Likewise an HPLC method for analysis of Vitamin D metabolites in plasma and feed has been developed. The work has been published in more than 200 publications within the area of basic physiology, nutrition, biochemistry, animal product quality and animal health, as well as development of new sensitive analytical methods on HPLC and GLC. In 2000 he won an Innovation Competition at Agro Business Park Foulum. This price led to the formation of the company

Evilec ApS. Evilec ApS produce and sell heat stable natural vitamin E, emulsified and stabilised in lecithin and vegetable oil. The products are mainly sold to feed manufacturers. He is external examiner at KU-LIFE.

Over the years 8-10 students from B.Sci to Ph.D level had been in the lab for a period (2-12 month) to do experimental work. The students had come from KVL, Sweden, Spain, Argentina and China. From April 2006 a grant from SOAR has made it possible to hire a Ph.D. student to the project: "Vitamin D status and supply in organic dairy cows". He is member of GCIRC, AOACS and EuroFedLipid.

### List of publications

The total list of publications can be downloaded from

<http://pure.agrsci.dk:8080/front.do?personaleId=SKJ%20%20&hasSearched=true&searchPublication=true>

- Hymøller, L., Mikkelsen, L.K., Jensen, S.K., Nielsen, M.O., Aaes, O. 2008. Access to outside areas during early spring in Denmark has negligible effect on the vitamin D<sub>3</sub> status of organic dairy cows. *Acta Agric. Scand. A*. Accepted.
- Idi, A., Permin, A., Jensen, S.K. & Darwin Murrell, K. 2007. Effect of a minor vitamin A deficiency on the course of infection with *Ascaridia galli* (Schränk, 1788) and the resistance of chickens. *Helminthologia*, 44: 3-9.
- Sejrsen, K., Bjørn, T. & Jensen, S.K. 2007. Prospects of obtaining favourable fatty acid composition of cows milk by feeding. *Journal of Animal and Feed Sciences*, 16, Suppl. 1, 7-20.
- Danielsson, H., Johansson, B., Nadeau, E., Persson-Waller, K. Jensen, S.K. 2007. Fatty acids and flavours in milk from cows fed no synthetic vitamins. *Journal of Animal and Feed Sciences*, 16, Suppl. 1, 59-64.
- Lauridsen, C., Hedemann, M.S. Pierzynowski, S. & Jensen, S.K. 2007. Dietary manipulation of the sow milk does not influence the lipid absorption capacity of the progeny. *Livestock Science* 108, 167-170.
- Jensen, S.K. & Lauridsen, C. 2007.  $\alpha$ -tocopherol stereoisomers. Ch 10. in: *Vitamin E* (Ed. G. Litwack). *Vitamins and Hormones*, 76, 281-308.
- Lauridsen, C., Christensen, T.B., Halekoh, U. & Jensen, S.K. 2007. Alternative fat sources to animal fat for pigs. *Lipid Technology*, 19, 156-159.
- Persson-Waller, K., Sandgren, H., Emanuelson, U., & Jensen, S.K. 2007. Supplementation of RRR- $\alpha$ -tocopheryl acetate to periparturient dairy cows in commercial herds with high mastitis incidence. *Journal of Dairy Science* 90, 3640-3646.
- Müller, C.E., Möller, J., Jensen, S.K. & Udén, P. 2007. Tocopherol and carotenoid levels in baled silage and haylage in relation to horse requirements. *Animal Feed Science and Technology*, 137, 182-197.
- Kristensen, N.B., Sehested, J., Jensen, S.K. & Vestergaard, M. 2007. Effect of milk allowance on concentrate intake, ruminal environment and ruminal development in milk-fed Holstein calves. *J. Dairy sci*, 90: 4346-4355.
- Lauridsen, C. & Jensen, S.K. 2007. Lipid composition of lactational diets influences the fatty acid profile of the progeny before and after suckling. *Animal* 1: 952-962.
- Lauridsen, C., Stagsted, J. & Jensen, S.K. 2007. n-6 and n-3 fatty acids ratio and vitamin E in porcine maternal diet influence the antioxidant status and immune cell eicosanoid response in the progeny. *Prostaglandins & other lipid mediators* 84: 66-78.
- Jensen S.K., Nørgaard J.V. & Lauridsen C. 2006. Bioavailability of  $\alpha$ -tocopherol stereoisomers in rats depends on dietary doses of *all-rac*- $\alpha$ -tocopheryl acetate or RRR- $\alpha$ -tocopheryl acetate. *Br J Nutr* 95, 477-487.
- Meglia, G.E. Jensen, S.K. Lauridsen, C. & Waller, K.P. 2006.  $\alpha$ -Tocopherol concentration and stereoisomer composition in plasma and milk from dairy cows fed natural or synthetic vitamin E around calving. *J. Dairy res.* 73, 227-234.
- Lauridsen, C. & Jensen, S.K. 2006. Transfer of vitamin E in milk to the newborn. Ch. 47 in: *The Encyclopedia of Vitamin E* (Ed: V.R. Preedy & R. Watson) Wallingford, Oxfordshire, UK : CABI International, c2006. pp1056.
- Sangild P.T., Siggers R.H., Schmidt M., Elnif J., Bjornvad C.R., Thymann T., Grondahl M.L., Hansen A.K., Jensen S.K., Boye M., Moelbak L., Buddington R.K., Westrom B. & Burrin D.G. 2006. Diet and colonization-dependent intestinal dysfunction predisposes to necrotizing enterocolitis in preterm pigs. *Gastroenterology* 130, 1776-1792.

- Thymann T, Burrin DG, Tappenden KA, Bjornvad CR, Jensen SK & Sangild PT. 2006. Formula-feeding reduces lactose digestive capacity in neonatal pigs. *Br. J. Nutr.* 95, 1075-1081.
- Cortinas L, Baucells MD, Villaverde C, Guardiola F, Jensen SK & Barroeta A. 2006. Influence of dietary polyunsaturation level on  $\alpha$ -tocopherol content chicken meat. *Arch. Geflügelk.* 70, 98-105.
- Bjornvad, C.R., Schmidt, M., Petersen, Y.M., Jensen, S.K., Offenberger, H., Elnif, J. & Sangild, P.T., 2005. Preterm birth makes the immature intestine sensitive to feeding-induced intestinal atrophy. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 289, R1212-R1222.
- Hoehler, D., Lemme, A., Jensen, S.K. & Viera, S.L., 2005. Relative effectiveness of methionine sources in diets for broiler chickens. *Journal of Applied Poultry Research* 14, 679-693.
- Lauridsen, C. & Jensen, S.K., 2005. Influence of supplementation of all-rac-alpha-tocopheryl acetate preweaning and vitamin C postweaning on alpha-tocopherol and immune responses of piglets. *J. Anim. Sci.* 83, 1274-1286.
- Bertram, H. C., Kristensen, N.B., Malmendal, A., Nielsen, N.C., Jensen, S.K. & Harmon, D.L., 2004. An NMR-based metabolomic approach to assess metabolism in splanchnic tissues of steers. *J. Anim. Feed. Sci.* 295-298.
- Cortinas L., Baroeta, A.C., Galobart, J. & Jensen, S.K. 2004. Distribution of  $\alpha$ -tocopherol stereoisomers in liver and thigh of chickens. *British Journal of Nutrition*, 92, 295-301.
- Knarreborg, A., Lauridsen, C., Engberg, R.M. & Jensen, S.K., 2004. Dietary antibiotic growth promoters enhance the bioavailability of  $\alpha$ -tocopheryl acetate in broilers through mediations of the lipid absorption processes. *J. Nutr.* 134, 1487-1492.
- Lauridsen, C. & Jensen, S.K. 2004. Supplementation of vitamin C to weaner diets increases IgM concentration and improves the biological activity of vitamin E in alveolar macrophages. *Scand. J. of Immunology* 59, 618.
- Sehested, J., Jørgensen, C., Mortensen, S.B., Jensen, S.K., Vestergaard, M., Koch, P., Jungersen, G. & Eriksen, L., 2004. Effect of oral  $\alpha$ -tocopherol and zinc on plasma status, IGF-I levels, weight gain and immune response in young calves. *J. Anim. Feed Sci.* 13, suppl. 1, 609-612.
- Young, J.F., Stagsted, J., Jensen, S.K., Karlsson, A.H. & Henckel, P., 2003. Ascorbic acid, alpha-tocopherol and oregano supplements reduce stress-induced deterioration of chicken meat quality. *Poultry Science* 82, 1343-1351.