

■ Publication list

Peer reviewed original research papers

- [26] EDER K, SIEBERS M, MOST E, SCHEIBE S; WEISSMANN N, GESSNER DK. An excess dietary vitamin E concentration does not influence Nrf2 signaling in the liver of rats fed either soybean oil or salmon oil. *Nutrition & Metabolism*. Accepted 31.10.2017.
- [25] CHIAPPISI E, RINGSEIS R, EDER K, **GESSNER DK**. Effect of endoplasmic reticulum stress on metabolic and stress signaling and kidney-specific functions in Madin-Darby bovine kidney cells. *Journal of Dairy Science* 2017, 100:6689-6706.
- [24] GESSNER DK, WINKLER A, KOCH C, DUSEL G, LIEBISCH G, RINGSEIS R, EDER K. Analysis of hepatic transcript profile and plasma lipid profile in early lactating dairy cows fed grape seed and grape marc meal extract. *BMC Genomics* 2017. 18:253.
- [23] DRONG C, BÜHLER S, FRAHM J, HUETHER L, MEYER U, VON SOOSTEN D, GESSNER DK, EDER K, SAUERWEIN H, DAENICKE S. Effects of monensin and essential oils on ruminal lipopolysaccharide concentration, inflammatory markers and endoplasmic reticulum stress of transition dairy cows. *Journal of Dairy Science* 2017. 100:2751-2764.
- [22] **GESSNER DK**, BONARIUS M, MOST E, FIESEL A, EDER K. Effects of polyphenol-rich plant products from grape or hop as feed supplements on the expression of inflammatory, antioxidative, cytoprotective and endoplasmic reticulum stress-related genes and the antioxidative status in the liver of piglets. *Journal of Animal Physiology and Animal Nutrition* 2016. Accepted July 26, 2016.
- [21] WEN G, PACHNER LI, **GESSNER DK**, EDER K, RINGSEIS R. Sterol Regulatory Element-Binding Proteins are Regulators of the Sodium/Iodide Symporter in Mammary Epithelial Cells. *Journal of Dairy Science* 2016, 99:9211-9226.
- [20] KLUGE H, **GESSNER DK**, HERZOG E, EDER K. Efficacy of DL-methionine hydroxy analogue-free acid in comparison to DL-methionine in growing male white Peking ducks. *Poultry Science* 2016, 95:590-594.
- [19] **GESSNER DK**, KOCH C, ROMBERG FJ, WINKLER A, DUSEL G, HERZOG E, MOST E, EDER K. The effect of grape seed and grape marc meal extract on milk performance and the expression of genes of endoplasmic reticulum stress and inflammation in the liver of dairy cows in early lactation. *Journal of dairy Science* 2015, 98:8856-8868.
- [18] WINKLER A, **GESSNER DK**, KOCH C, ROMBERG FJ, DUSEL G, HERZOG E, MOST E, EDER K. Effects of a plant product consisting of green tea and curcuma extract on milk production and the expression of hepatic genes involved in endoplasmic stress response and inflammation in dairy cows. *Archives of Animal Nutrition* 2015, 69:425-441.

- [17] **GESSNER DK**, GROENE B, RINGSEIS R, ROSENBAUM S, MOST E, HILLEN S., BECKER S, ERHARDT G, REINER G, EDER K. Dietary fish oil inhibits pro-inflammatory and ER stress signalling pathways in the liver of sows during lactation. *PLoS One* 2015, 10:e0137684.
- [16] **GESSNER DK**, GROENE B, RINGSEIS R, ROSENBAUM S, MOST E, HILLEN S., BECKER S, ERHARDT G, REINER G, EDER K. Effect of a negative energy balance induced by feed restriction in lactating sows on hepatic lipid metabolism, milk production and development of litters. *Archives of Animal Nutrition* 2015, 69:399-410.
- [15] **GESSNER DK**, GROENE B, RINGSEIS R, ROSENBAUM S, MOST E, HILLEN S., BECKER S, ERHARDT G, REINER G, EDER K. Effect of a negative energy balance induced by feed restriction on pro-inflammatory and endoplasmic reticulum stress signalling pathways in the liver and skeletal muscle of lactating sows. *Archives of Animal Nutrition* 2015, 69:411-423.
- [14] FIESEL A, EHRMANN M, **GESSNER DK**, EDER K. Effects of dietary polyphenol-rich plant products from grape or hop on iron, zinc and copper status in piglets. *Archives of Animal Nutrition* 2015, 22:1-9.
- [13] **GESSNER DK**, MOST E, SCHLEGEL G, KUPCZYK K, SCHWARTZ FJ, EDER K. Concentrations of retinol and tocopherols in the milk of cows supplemented with rumen-protected conjugated linoleic acid. *Journal of Animal Physiology and Animal Nutrition* 2015, 99:1039-46.
- [12] **GESSNER DK**, GROENE B, ROSENBAUM S, MOST E, HILLEN S, BECKER S, ERHARDT G, REINER G, EDER K. Effect of dietary fish oil on the expression of genes involved in lipid metabolism in liver and skeletal muscle of lactating sows. *Journal of Animal Physiology and Animal Nutrition* 2015, **100**:337-347.
- [11] **GESSNER DK**, GROENE B, ROSENBAUM S, MOST E, HILLEN S, BECKER S, REINER G, ERHARDT G, EDER K. Treatment of lactating sows with clofibrate as a synthetic agonist of PPARalpha does not influence milk fat content and gains of litters. *BMC Veterinary Research* 2015, 11:368.
- [10] FIESEL A, **GESSNER DK**, MOST E, EDER K. Effects of dietary polyphenol-rich plant products from grape or hop on pro-inflammatory gene expression in the intestine, nutrient digestibility and fecal microbiota of weaned pigs. *BMC Veterinary Research*. 2014, 10:196.

- [9] **GESSNER DK**, SCHLEGEL G, RINGSEIS R, SCHWARZ FJ, EDER K. Up-regulation of endoplasmic reticulum stress induced genes of the unfolded protein response in the liver of periparturient dairy cows. *BMC Veterinary Research* 2014, 10:46.
- [8] KRÜGER K, **GESSNER DK**, SEIMETZ M, BANISCH J, RINGSEIS R, EDER K, WEISMANN N, MOOREN FC. Functional and muscular adaptations in an experimental model for isometric strength training in mice. *PLoS One* 2013, 8:e79069.
- [7] RINGSEIS R, RAUER C, ROTHE S, **GESSNER DK**, SCHUETZ L, LUCI S, WEN G, EDER K. Sterol regulatory element-binding proteins are regulators of the NIS gene in thyroid cells. *Molecular Endocrinology* 2013, 27:781-800.
- [6] **GESSNER DK**, FIESEL A, RINGSEIS R, WEN G, DINGES J, EDER K. Polyphenol rich grape seed and grape marc meal extract decreases NF- κ B induced inflammatory processes and stress response-related Nrf2 targets in intestinal epithelial cells of piglets. *Acta Veterinaria Scandinavica* 2013, 55:18.
- [5] RINGSEIS R, ROSENBAUM S., **GESSNER DK**, HERGES L, KUBENS JF, MOOREN FC, KRÜGER K, EDER K. Supplementing Obese Zucker Rats with Niacin Induces the Transition of Glycolytic to Oxidative in Skeletal Muscle Fibers. *Journal of Nutrition* 2013, 143:125-131.
- [4] **GESSNER DK**, KELLER J, SCHLEGEL G, RINGSEIS R, SCHWARZ FJ, EDER K. Expression of Nrf2 target genes in the liver of dairy cows in the transition period and at different stages of lactation. *Journal of Dairy Science* 2013, 96:1038-1043. Highlighted article.
- [3] **GESSNER DK**, RINGSEIS R, MÖLLER C, EDER K. Increased plasma thyroid hormone concentrations in LDL receptor deficient mice may be explained by inhibition of Aryl hydrocarbon receptor-dependent expression of hepatic UDP-glucuronosyltransferases. *Biochimica et Biophysica Acta* 2012, 1820:495-502.
- [2] **GESSNER DK**, RINGSEIS R, SIEBERS M, KELLER J, KLOSTER J, WEN G, EDER K. Inhibition of the pro-inflammatory NF- κ B pathway by a grape seed and grape marc meal extract in intestinal epithelial cells. *Journal of Animal Physiology and Animal Nutrition* 2012, 96:1074-1083.
- [1] VARADY J, **GESSNER DK**, MOST E, EDER K, RINGSEIS R. Dietary moderately oxidized oil activates the Nrf2 signaling pathway in the liver of pigs. *Lipids in Health and Disease* 2012, 11:31.

Scientific reviews

- [2] **GESSNER DK**, RINGSEIS R, EDER K. Potential of plant polyphenols to combat oxidative stress and inflammatory processes in farm animals. *Journal of Animal Physiology and Animal Nutrition* 2016, doi: 10.1111/jpn.12579.

- [1] RINGSEIS R, **GESSNER DK**, EDER K. Molecular insights into the mechanisms of liver-associated diseases in early lactating dairy cows: Hypothetical role of endoplasmic reticulum stress. Review. *Journal of Animal Physiology and Animal Nutrition* 2014, 99:626-645.