

Ahrens HE, Petersen B, Herrmann D, Lucas-Hahn A, Hassel P, Ziegler M, Kues WA, Baulain U, Baars W, Schwinzer R, Denner J, Rataj D, Werwitzke S, Tiede A, Bongoni AK, Garimella PS, Despont A, Rieben R, Niemann H: 2015. siRNA mediated knockdown of tissue factor expression in pigs for xenotransplantation. Am J Transplant 15:1407-1414.

Ahrens HE, Petersen B, Ramackers W, Petkov S, Herrmann D, Hauschild-Quintern J, Lucas-Hahn A, Hassel P, Ziegler M, Baars W, Bergmann S, Schwinzer R, Winkler R, Niemann H: 2015. Kidneys from α 1,3-galactosyltransferase knockout/human heme oxygenase-1/human A20 transgenic pigs are protected from rejection during ex vivo perfusion with human blood. Transplantation Direct 1:e23 doi:10.1097/TXD.0000000000000533

Barchanski A, Taylor U, Sajti SL, Gamrad L, Kues WA, Rath D, Barcikowski S: 2015. Bioconjugated gold nanoparticles penetrate into spermatozoa depending on plasma membrane status. J Biomed Nanotechnol 11:1597-1607.

Beissinger TM, Gholami M, Erbe M, Weigend S, Weigend A, de Leon N, Gianola D, Simianer H: 2015. Using the variability of linkage disequilibrium between subpopulations to infer sweeps and epistatic selection in a diverse panel of chickens. Heredity 116:158-166.

Berger S, Schlather M, de los Campos G, Weigend S, Preisinger R, Erbe M, Simianer H: 2015. A Scale-Corrected Comparison of Linkage Disequilibrium Levels between Genic and Non-Genic Regions. PLoS one 10:e0141216.

Bernal Ulloa SM, Heinzmann J, Herrmann D, Timmermann B, Baulain U, Großfeld R, Diederich M, Lucas-Hahn A, Niemann H: 2015. Effects of different oocyte retrieval and in vitro maturation systems on bovine embryo development and quality. Zygote 23:367-377.

Bosch P, Forcato DO, Alustiza FE, Alessio AP, Fili AE, Olmos-Nicotra MF, Liaudat AC, Rodriguez N, Talluri TR, Kues WA: 2015. Exogenous enzymes upgrade transgenesis and genetic engineering of farm animals. Cell Mol Life Sci 72:1907-1929.

Cai J, Zhao K, Wang Y, Schwarz S, Lv H, Li Y, Liao K, Yu S, Gu D, Wang X, Zhang R, Shen J: 2015. Enterococcal isolates carrying the novel oxazolidinone resistance gene *optrA* from hospitals in Zhejiang, Guangdong, and Henan, China, 2010-2014. Clin Microbiol Infect 21:1095.e1-1095.e4.

Ceccobelli S, Di Lorenzo P, Lancioni H, Monteagudo Ibáñez LV, Tejedor MJ, Castellini C, Landi V, Martínez Martínez A, Delgado Bermejo JV, Vega Pla JL, Leon Jurado JM, García N, Attard G, Grimal A, Stojanovic S, Kume K, Panella F, Weigend S, Lasagna E: 2015. Genetic diversity and phylogeographic structure of sixteen Mediterranean chicken breeds assessed with microsatellites and mitochondrial DNA. Livestock Sci 175:27-36.

Couto N, Belas A, Kadlec K, Schwarz S, Pomba C: 2015. Clonal diversity, virulence, antimicrobial and biocide susceptibility patterns among human, animal and environmental MRSA in Portugal. J Antimicrob Chemother 70:2483-2487.

Denner J, Petersen B, Niemann H: 2015. Tolerance and immune response to the porcine endogenous retrovirus in German landrace pigs immunised with viral proteins. *Virus Res* 208:39-43.

Eidam C, Poehlein A, Leimbach A, Michael GB, Kadlec K, Liesegang H, Daniel R, Sweeney MT, Murray RW, Watts JL, Schwarz S: 2015. Analysis and comparative genomics of ICEMh1, a novel integrative and conjugative element (ICE) of *Mannheimia haemolytica*. *J Antimicrob Chemother* 70:93-97.

Ellrichmann M, Dhar S, Hadeler KG, Seehusen F, Cuming T, Feßler AT, Niemann H, Schwarz S, Fritscher-Ravens A: 2015. Risk of infection after iatrogenic perforation of the gut wall? Evaluation of preventive strategies in a randomized controlled animal trial. *Surg Endosc* published online 20 October 2015, doi:10.1007%2Fs00464-015-4600.

Ferreira CR, Jarmusch AK, Pirro V, Alfaro CM, González-Serrano AF, Niemann H, Wheeler MB, Rabel RA, Hallett JE, Houser R, Kaufman A, Cooks RG: 2015. Ambient ionisation mass spectrometry for lipid profiling and structural analysis of mammalian oocytes, preimplantation embryos and stem cells. *Reprod Fertil Dev* 27:621-367.

Garrels W, Mukherjee A, Holler S, Cleve N, Talluri TR, Barg-Kues B, Diederich M, Köhler P, Petersen B, Lucas-Hahn A, Niemann H, Izsvák Z, Ivics Z, Kues WA: 2015. Identification and re-addressing of a transcriptionally permissive locus in the porcine genome. *Transgenic Res* 25:63-70.

Garrels W, Talluri TR, Ziegler M, Most I, Forcato DO, Schmeer M, Schleef M, Ivics Z, Kues WA: 2015. Cytoplasmic injection of murine zygotes with Sleeping Beauty transposon plasmids and minicircles for the generation of germline transgenic mice. *Biotechnol J* 11:178-184.

Gholami M, Reimer C, Erbe M, Preisinger R, Weigend S, Servin B, Simianer H: 2015. Genome scan for selection in structured layer chicken populations exploiting linkage disequilibrium information. *PLoS ONE* 10:e013049, doi:10.1371/journal.pone.0130497.

González-Serrano AF, Ferreira CR, Pirro V, Lucas-Hahn A, Heinzmann J, Hadeler KG, Baulain U, Aldag P, Meyer U, Piechotta M, Jahreis G, Dänicke S, Cooks RG, Niemann H: 2015. Effects of long-term dietary supplementation with conjugated linoleic acid on bovine oocyte lipid profile. *Reprod Fertil Dev*, published online 27 February 2015, doi:10.1071/RD14352.

He T, Shen J, Schwarz S, Wu C, Wang Y: 2015. Characterization of a genomic island in *Stenotrophomonas maltophilia* that carries a novel *floR* gene variant. *J Antimicrob Chemother* 70:1031-1036.

Heinzmann J, Mattern F, Aldag P, Bernal-Ulloa SM, Schneider T, Haaf T, Niemann H: 2015. Extended in vitro maturation affects gene expression and DNA methylation in bovine oocytes. *Mol Hum Reprod* 21:770-782.

Hinkel R, Lange P, Petersen B, Gottlieb E, Ng JK, Finger S, Horstkotte J, Lee S, Thormann M, Knorr M, El-Aouni C, Boekstegers P, Reichart B, Wenzel P, Niemann H, Kupatt C: 2015. Heme oxygenase-1 gene therapy provides

cardioprotection via control of post-ischemic inflammation: an experimental study in a pre-clinical pig model. *J Am Coll Cardiol* 66:154-165.

Huang Y, Jung A, Schäfer W-J, Mock D, Michael GB, Runge M, Schwarz S, Steinhagen D: 2015. Analysis of *Yersinia ruckeri* strains isolated from trout farms in northwest Germany. *Dis Aquat Organ* 116:243-249.

Kádasi A, Štochmalová A, Maruniaková N, Kolesárová A, Grossmann R, Sirotkin AV: 2015. Effect of natural plant extracts on porcine ovarian functions. *J Microbiol Biotech Food Sci* 4 (Suppl. 2):45-48.

Kadlec K, Schwarz S, Goering R, Weese JS: 2015. Direct repeat unit (*dru*) typing of methicillin-resistant *Staphylococcus pseudintermedius* from dogs and cats. *J Clin Microbiol* 53:3760-3765.

Kumar D, Talluri TR, Anand T, Kues WA: 2015. Induced pluripotent stem cells: mechanisms, achievements and perspectives in farm animals. *World J Stem Cells* 7:315-328.

Kumar D, Talluri TR, Anand T, Kues WA: 2015. Transposon-based reprogramming to induced pluripotency. *Histol Histopathol* 30:1397-1407.

Li D, Wu C, Wang Y, Fan R, Schwarz S, Zhang S: 2015. Identification of the multiresistance gene *cfr* in methicillin-resistant *Staphylococcus aureus* from pigs: plasmid location and integration into a Staphylococcal Cassette Chromosome *mec* complex. *Antimicrob Agents Chemother* 59:3641-3644.

Lieboldt M-A, Halle I, Frahm J, Schrader L, Baulain U, Henning M, Preisinger R, Dänicke S, Weigend S: 2015. Phylogenetic versus selection effects on growth development, egg laying and egg quality in purebred laying hens. *Europ Poult Sci* 79, published online 26 May 2015, doi:10.1399/eps.2015.89.

Lieboldt M-A, Halle I, Frahm J, Schrader L, Weigend S, Preisinger R, Dänicke S: 2015. Effects of long-term graded L-arginine supply on growth development, egg laying and egg quality in four genetically diverse purebred layer lines. *J Poultry Sci*, published online 25 July 2015; doi:10.2141/jpsa.

Lyimo CM, Weigend A, Msoffe PL, Hocking PM, Simianer H, Weigend S: 2015. Maternal genealogical patterns of chicken breeds sampled in Europe. *Anim Genet* 46:447-451.

Ma Y, Ding X, Qanbari S, Weigend S, Zhang Q, Simianer H: 2015. Properties of different selection signature statistics and a new strategy for combining them. *Heredity* 115:426-436.

Maaland MG, Mo SS, Schwarz S, Guardabassi L: 2015. In vitro assessment of chloramphenicol and florfenicol as second-line antimicrobial agents in dogs. *J Vet Pharmacol Ther* 38:443-450.

Michael GB, Freitag C, Wendlandt S, Eidam C, Feßler AT, Lopes GV, Kadlec K, Schwarz S: 2015. Emerging issues in antimicrobial resistance of bacteria from food-producing animals. *Future Microbiol* 10:427-443.

Nath S, Kadasi A, Grossmann R, Sirotkin AV, Kolesarová A, Talukdar AD, Choudhury MD: 2015. Ricinus communis L. stem bark extracts regulate ovarian cell

functions and secretory activity and their response to luteinising hormone. *Int J Impot Res* 27:215-220.

Petersen B, Niemann H: 2015. Advances in genetic modification of farm animals using zinc-finger nucleases (ZFN). *Chromosome Res* 23:7-15. (Review)

Petersen B, Niemann H: 2015. Molecular scissors and their application in genetically modified farm animals. *Transgenic Res* 24:381-396. (Review)

Petersen B, Niemann H: 2015. The future of transgenic farm animal production with emphasis on pigs. *CAB Reviews* 9, Nr. 44:1-16.

Petkov S, Glage S, Nowak-Imialek M, Niemann H: 2015. Long-term culture of porcine induced pluripotent stem-like cells under feeder-free conditions in the presence of histone deacetylase inhibitors. *Stem Cells Dev*, published online 22 December 2015; doi:10.1089/scd.2015.0317.

Rath D, Knorr C, Taylor U: 2015. Communication requested: Boar semen transport through the uterus and possible consequences for insemination. *Theriogenology* 85:94-104.

Rath D, Tiedemann D, Gamrad L, Johnson LA, Klein S, Kues W, Mancini R, Rehbock C, Taylor U, Barcikowski S: 2015. Sex-sorted boar semen - an update of related production methods. *Reprod Dom Anim* 50, Suppl. 2:56-60.

Reichart B, Niemann H, Chavakis T, Denner J, Jaeckel E, Ludwig B, Marckmann G, Schnieke A, Schwinzer R, Seissler J, Tönjes RR, Klymiuk N, Wolf E, Bornstein SR: 2015. Xenotransplantation of porcine islet cells as a potential option for the treatment of type 1 diabetes in the future. *Horm Metab Res* 47:31-35.

Scholz AM, Bünger L, Kongsro J, Baulain U, Mitchell AD: 2015. Non-invasive methods for the determination of body and carcass composition in livestock: dual-energy X-ray absorptiometry, computed tomography, magnetic resonance imaging and ultrasound: invited review. *Animal* 9:1250-1264.

Schwarz S, Wang Y: 2015. Nomenclature and functionality of the so-called *cfr* gene from *Clostridium difficile*. *Antimicrob Agents Chemother* 59:2476-2477.

Si H, Zhang W, Chu S, Wang X-M, Dai L, Hua X, Dong Z, Schwarz S, Liu S: 2015. Novel plasmid-borne multidrug resistance gene cluster including *lسا(E)* from a linezolid-resistant *Enterococcus faecium* of swine origin. *Antimicrob Agents Chemother* 59:7113-7116.

Sirotkin AV, Alexa R, Dekanova P, Kadasi A, Stochmalova A, Grossmann R, Alwasel SH, Harrath AH: 2015. The mTOR System can affect basic ovarian cell functions and mediate the effect of ovarian hormonal regulators. *Int J Pharmacol* 11:570-578.

Sirotkin AV, Grossmann R: 2015. Interrelationship between feeding level and the metabolic hormones leptin, ghrelin and obestatin in control of chicken egg laying and release of ovarian hormones. *Comp Biochem Physiol A Mol Integr Physiol* 184:1-5.

Smith H, Bossers A, Harders F, Wu G, Woodford N, Schwarz S, Guerra B, Rodríguez I, van Essen-Zandbergen A, Brouwer M, Mevius D: 2015. Characterization of epidemic IncI1-Iy plasmids harboring ambler class A and C genes

in *Escherichia coli* and *Salmonella enterica* from animals and humans. *Antimicrob Agents Chemother* 59:5357-5365.

Štochmal'ová A, Földešiová M, Baláži A, Kádasi A, Grossmann R, Alexa R, Chrenek P, Sirotkin AV: 2015. *Yucca schidigera* extract can promote rabbit fecundity and ovarian progesterone release. *Theriogenology* 84:634-638.

Talluri TR, Kumar D, Glage S, Garrels W, Debowski K, Behr R, Niemann H, Kues WA: 2015. Derivation and characterization of bovine iPS cells by a transposon-mediated approach. *Cell Reprogram* 17:131-140.

Taylor U, Tiedemann D, Rehbock C, Kues WA, Barcikowski S, Rath D: 2015. Influence of gold, silver, and gold-silver-alloy nanoparticles on germ cell function and embryo development. *Beilstein J Nanotechnol* 6:651-664.

Wang Y, Lv Y, Cai J, Schwarz S, Cui L, Hu Z, Zhang R, Li J, Zhao Q, He T, Wang D, Wang Z, Shen Y, Li Y, Feßler AT, Wu C, Yu H, Deng X, Xia X, Shen J: 2015. A novel gene, *optrA*, that confers transferable resistance to oxazolidinones and phenicols and its presence in *Enterococcus faecalis* and *Enterococcus faecium* of human and animal origin. *J Antimicrob Chemother* 70:2182-2190.

Wendlandt S, Heß S, Li J, Feßler AT, Wang Y, Kadlec K, Gallert C, Schwarz S: 2015. Detection of the macrolide-lincosamide-streptogramin B resistance gene *erm*(44) and a novel *erm*(44) variant in staphylococci from aquatic environments. *FEMS Microbiol Ecol* 91:fiv090.

Wendlandt S, Kadlec K, Feßler AT, Schwarz S: 2015. Identification of ABC transporter genes conferring combined pleuromutilin-lincosamide-streptogramin A resistance in bovine methicillin-resistant *Staphylococcus aureus* and coagulase-negative staphylococci. *Vet Microbiol* 177:353-358.

Wendlandt S, Kadlec K, Schwarz S: 2015. Four novel plasmids from *Staphylococcus hyicus* and CoNS that carry a variant of the spectinomycin resistance gene *spd*. *J Antimicrob Chemother* 70:948-949.

Wendlandt S, Shen J, Kadlec K, Wang Y, Li B, Zhang WJ, Feßler AT, Wu C, Schwarz S: 2015. Multidrug resistance genes in staphylococci from animals that confer resistance to critically and highly important antimicrobial agents in human medicine. *Trends Microbiol* 23:44-54.

Wülfers-Mindermann M, Berg C, Illmann G, Baulain U, Algiers B: 2015. The effect of farrowing environment and previous experience on the maternal behaviour of sows in indoor pens and outdoor huts. *Animal* 9:669-676.

Zhang WJ, Wang XM, Dai L, Hua X, Dong Z, Schwarz S, Liu S: 2015. Novel conjugative plasmid from *Escherichia coli* of swine origin that coharbors the multiresistance gene *cfr* and the extended-spectrum-β-lactamase gene *bla_{CTX-M-14b}*. *Antimicrob Agents Chemother* 59:1337-1340.

Zhou Y, Wei X, Zi Z, Zou B, Xia S, Lu N, Lei H, Lu Y, Parvizi N, Xia D: 2015. Potassium diformate influences gene expression of GH/IGF-1 axis and glucose homeostasis in weaning piglets. *Livest Sci* 172:85-90.