



Klaus Wimmers

wimmers@fhn-dummerstorf.de

Education and Employment

- 1989 degree in veterinary science, FU Berlin
- 1990-1994 Doctoral student at the Institute of Animal production, TU Berlin; Dr. rer. nat.
- 1994-1996 Scientific assistant at the Institute of Animal production, HU Berlin
- 1996-2004 Scientist/senior scientist at the Institute of Animal science, Bonn;
- 2002 Habilitation, venia legendi Animal Breeding and Genetics, University of Bonn
- since 2004 Head of the Institute for Genome Biology at the FBN

Main Field of Research

Farm Animal Genomics: identification of molecular pathway and mechanisms, and genes affecting traits related to animal health or meat quality by integrating genome-wide association studies with holistic expression profiling and analyses of candidate genes

Selected recent publications

- Chomwisarutkun K, Murani E, Brunner R, Ponsuksili S, Wimmers K. (2012): QTL regionspecific microarrays reveal differential expression of positional candidate genes of signaling pathways associated with the liability for the inverted teat defect. *Anim Genet*:Jun 13, 2012.
- Murani E, Reyer H, Ponsuksili S, Fritschka S, Wimmers K. (2012): A substitution in the ligand binding domain of the porcine glucocorticoid receptor affects activity of the adrenal gland. *PLoS One* 7(9):e45518.
- Ponsuksili S, Du Y, Murani E, Schwerin M, Wimmers K. (2012): Elucidating Molecular Networks That Either Affect or Respond to Plasma Cortisol Concentration in Target Tissues of Liver and Muscle. *Genetics* 192(3):1109-22.
- Muràni, E.; Wimmers, S.; D'Eath, R.; Turner, S.; Evans, G.; Thölking, L.; Kurt, E.; Klont, R.; Foury, A.; Mormède, P.; Wimmers, K. (2011): Differential mRNA expression of genes in the porcine adrenal gland associated with psychosocial stress. *J Mol Endocrinol* 46(3):165-74.
- Oster M, Muràni E, Metges C C, Ponsuksili S, Wimmers K (2011): A High Protein Diet during Pregnancy Affects Hepatic Gene Expression of Energy Sensing Pathways along Ontogenesis in a Porcine Model. *PLoS One* 6:e21691.
- Ponsuksili S, Muràni E, Brand B, Schwerin M, Wimmers K (2011): Integrating expression profiling and whole-genome association for dissection of fat traits in a porcine model. *J Lipid Res* 52:668-78.
- Ponsuksili S, Murani E, Phatsara C, Schwerin M, Schellander K, Wimmers K (2010) Expression quantitative trait loci analysis of genes in porcine muscle by quantitative realtime RT-PCR compared to microarray data. *Heredity* 105:309-17.

- Murani E, Ponsuksili S, D'Eath RB, Turner SP, Kurt E, Evans G, Tholking L, Klont R, Foury A, Mormede P, Wimmers K (2010) Association of HPA axis-related genetic variation with stress reactivity and aggressive behaviour in pigs. *BMC Genetics* 11:74.
- Ponsuksili S, Muràni E, Schwerin M, Schellander K, Wimmers K. (2010): Identification of expression QTL (eQTL) of genes expressed in porcine *M. longissimus dorsi* and associated with meat quality traits. *BMC Genomics* 11:572.
- Ponsuksili S, Muràni E, Phatsara C, Schwerin M, Schellander K, Wimmers K (2009): Porcine muscle sensory attributes associate with major changes in gene networks involving CAPZB, ANKRD1, and CTBP2. *Funct Integr Genomics* 9:455-471
- Muràni E, Ponsuksili S, Seyfert HM, Shi X, Wimmers K (2009): Dual effect of a single nucleotide polymorphism in the first intron of the porcine secreted phosphoprotein 1 gene: allele-specific binding of C/EBP beta and activation of aberrant splicing. *BMC Mol Biol* 10:96
- Wimmers K, Muràni E, Schellander K, Ponsuksili S (2009): QTL for traits related to humoral immune response estimated from data of a porcine F2 resource population. *Int J Immunogenet* 36:41-151
- Wimmers K, Kumar KG, Schellander K, Ponsuksili S (2008): Porcine IL12A and IL12B gene mapping, variation and evidence of association with lytic complement and blood leucocyte proliferation traits. *Int J Immunogenet* 35:5-85
- Ponsuksili S, Jonas E, Muràni E, Phatsara C, Srikanchai T, Walz C, Schwerin M, Schellander K, Wimmers K (2008): Trait correlated expression combined with expression QTL analysis reveals biological pathways and candidate genes affecting water holding capacity of muscle. *BMC Genomics* 9:31
- Wimmers K, Ngu NT, Jennen DGJ, Tesfaye D, Murani E, Schellander K, Ponsuksili S (2008): Relationship between myosin heavy chain isoform expression and muscling in several diverse pig breeds. *J Anim Sci* 86:795-803.