

## Book contributions

**Michael Hölker**, Nasser Ghanem, Dawit Tesfaye and Karl Schellander (2012) Sperm-Mediated Gene Transfer: Implications for Biotechnology and Medicine. Sperm-Mediated Gene Transfer: Concepts and Controversies. Kevin R. Smith, Bentham Books: 33-42, ISBN: 978-1-60805-432-9

## Publications (peer-reviewed Scientific journals)

1. Held-Hoelker E, Kurzella J, Salilew-Wondim D, Rings F, Tesfaye D, Tholen E, Grosse-Brinkhaus C, **Hoelker M** (2024) L-Carnitine sustainably affects bioenergetic profile of bovine blastocysts and transcriptome profile of elongation-stage embryos. *Reproduction* 168(3):e240004. doi: 10.1530/REP-24-0004
2. Salilew-Wondim D, **Hoelker M**, Held-Hoelker E, Rings F, Tholen E, Große-Brinkhaus C, Shellander K, Blaschka C, Besenfelder U, Havlicek V, Tesfaye D (2024) Sexual dimorphic miRNA-mediated response of bovine elongated embryos to the maternal microenvironment. *PLoS One* 19(2):e0298835. doi: 10.1371/journal.pone.0298835
3. Salilew-Wondim D, Tholen E, Held-Hoelker E, Shellander K, Blaschka C, Drillich M, Iwersen M, Suess D, Gebremedhn S, Tesfaye D, Parys C, Helmbrecht A, Guyader J, Miskel D, Trakooljul N, Wimmers K, **Hoelker M** (2024) Endometrial DNA methylation signatures during the time of breeding in relation to the pregnancy outcome in postpartum dairy cows fed a control diet or supplemented with rumen-protected methionine. *Front Genet.* 14:1267053. doi: 10.3389/fgene.2023.1267053
4. Kurzella J, Miskel D, Rings F, Tholen E, Tesfaye D, Schellander K, Salilew-Wondim D, Held-Hoelker E, Große-Brinkhaus C, **Hoelker M** (2023) The mitochondrial respiration signature of the bovine blastocyst reflects both environmental conditions of development as well as embryo quality. *Sci Rep.* 13(1):19408. doi: 10.1038/s41598-023-45691-2.
5. Kurzella J, Miskel D, Rings F, Tholen E, Tesfaye D, Schellander K, Salilew-Wondim D, Held-Hoelker E, Große-Brinkhaus C, **Hoelker M** (2023) Mitochondrial bioenergetic profiles of warmed bovine blastocysts are typically altered after cryopreservation by slow freezing and vitrification. *Theriogenology* 214:21-32. doi: 10.1016/j.theriogenology.2023.10.002. Epub 2023 Oct 10
6. Rabaglino MB, Salilew-Wondim D, Zolini A, Tesfaye D, **Hoelker M**, Lonergan P, Hansen PJ (2023) Machine-learning methods applied to integrated transcriptomic data from bovine blastocysts and elongating conceptuses to identify genes predictive of embryonic competence. *FASEB J.* 37(3):e22809. doi: 10.1096/fj.202201977R
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8. Sohel MMH, **Hoelker M**, Schellander K, Tesfaye D (2022) The extent of the abundance of exosomal and non-exosomal extracellular miRNAs in the bovine follicular fluid. *Reprod Domest Anim.* doi: 10.1111/rda.14195 (online ahead of print)
9. Miskel D, Poirier M, Beunink L, Rings F, Held E, Tholen E, Tesfaye D, Schellander K, Salilew-Wondim D, Blaschka C, Große-Brinkhaus C, Bertram B, **Hoelker M** (2022) The cell cycle stage of bovine zygotes electroporated with CRISPR/Cas9-RNP affects frequency of Loss-of-heterozygosity editing events. *Sci Rep.* 12(1):10793. doi: 10.1038/s41598-022-14699-5
10. Riosa R, Ghaffari MH, Hammon HM, Süß D, **Hoelker M**, Drillich M, Parys C, Guyader J, Sauerwein H, Iwersen M (2022) Identification and characterization of dairy cows with different backfat thickness antepartum in relation to postpartum loss of backfat thickness: A cluster analytic approach. *J Dairy Sci.* 105(7):6327-6338. doi: 10.3168/jds.2021-21434
11. Salilew-Wondim D, Tesfaye D, Rings F, Held-Hoelker E, Miskel D, Sirard MA, Tholen E, Schellander K, **Hoelker M** (2021) The global gene expression outline of the bovine blastocyst: reflector of environmental conditions and predictor of developmental capacity. *BMC Genomics* 22(1):408. doi: 10.1186/s12864-021-07693-0

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