

Publications

Original Data Publications

1. Schmitt J, **Eckardt S**, Schlegel PG, Sirén AL, Bruttel VS, McLaughlin KJ, Wischhusen J, Müller AM. Human parthenogenetic embryonic stem cell-derived neural stem cells express HLA-G and show unique resistance to NK cell-mediated killing. *Mol Med*. 2015 Mar 23. doi: 10.2119/molmed.2014.00188. [Epub ahead of print] PubMed PMID: 25811991.
2. Espejel S, **Eckardt S**, Harbell J, Roll GR, McLaughlin KJ, Willenbring H. Brief report: Parthenogenetic embryonic stem cells are an effective cell source for therapeutic liver repopulation. *Stem Cells*. 2014 Jul;32(7):1983-8. [PMID: 24740448].
3. Zhou J, Leu NA, **Eckardt S**, McLaughlin KJ, Wang PJ. STK31/TDRD8, a Germ Cell-Specific Factor, Is Dispensable for Reproduction in Mice. *PLoS One*. 2014 Feb 19;9(2):e89471. [PMID: 24586802]
4. Gao K, Li L, He L, Hinkle K, Wu Y, Ma J, Chang L, Zhao X, Perez DG, **Eckardt S**, McLaughlin J, Liu B, Farson DF, Lee LJ. Design of a microchannel-nanochannel-microchannel array based nanoelectroporation system for precise gene transfection. *Small*. 2014 Mar;10(5):1015-23. [PMID: 24173879]
5. Ahmad R, Wolber W, **Eckardt S**, Koch P, Schmitt J, Semechkin R, Geis C, Heckmann M, Brüstle O, McLaughlin JK, Sirén AL, Müller AM. Functional neuronal cells generated by human parthenogenetic stem cells. *PLoS One*. 2012;7(8):e42800. [PMID: 22880113]
6. Zhou, J., Pan, J., **Eckardt, S.**, Leu, N.A., McLaughlin, K.J., Wang, P.J. (2011). Nxf3 is expressed in Sertoli cells, but is dispensable for spermatogenesis. *Mol Reprod Dev*. Feb 4. doi: 10.1002/mrd.21291 [Epub ahead of print] [PMID: 21308854]
7. **Eckardt, S.**, Yanchik, A., Leu, N.A., Hatada, S., Kyba, M., and McLaughlin, K.J. (2011). Gene therapy by allele selection in a mouse model of beta-thalassemia. *J Clin Invest*. Feb 1;121(2):623-7. [PMID: 21308854]
8. Maclean, J.A., Bettgowda, A., Kim, B.J., Lou, C.H., Yang, S.M., Bhardwaj, A., Shanker, S., Hu, Z., Fan, Y., **Eckardt, S.**, McLaughlin, K.J., Skoultchi, A.I., Wilkinson, M.F. (2011). The rhox homeobox gene cluster is imprinted and selectively targeted for regulation by histone h1 and DNA methylation. *Mol Cell Biol*. Mar;31(6):1275-87. Epub Jan 18. [PMID: 21245380]
9. Choi, S.W., **Eckardt, S.**, Ahmad, R., Wolber, W., Hornich, V., McLaughlin, K.J., Sirén, A.L., and Muller, A.M. (2010). Two paternal genomes are compatible with dopaminergic in vitro and in vivo differentiation. *Int J Dev Biol*. 54(11-12):1755-62. [PMID: 21404193]
10. Yang, F., Cheng, Y., An, J.Y., Kwon, Y.T., **Eckardt, S.**, Leu, N.A., McLaughlin, K.J., and Wang, P.J. (2010). The Ubiquitin Ligase Ubr2, a Recognition E3 Component of the N-End Rule Pathway, Stabilizes Tex 19.1 during Spermatogenesis. *PLoS One*. Nov16;5(11):e14017. [PMID: 21103378]
11. Popkie, A.P., Zeidner, L.C., Albrecht, A.M., D'Ippolito, A., **Eckardt, S.**, Newsom, D.E., Groden, J., Doble, B.W., Aronow, B., McLaughlin, K.J., White, P., Phiel, C.J. (2010). Phosphatidylinositol 3-kinase (PI3K) signaling via glycogen synthase kinase-3 (Gsk3) regulates DNA methylation of imprinted loci. *J Biol Chem*. Nov3 [Epub ahead of print]. [PMID: 21047779]

12. Zheng, K., Xiol, J., Reuter, M., **Eckardt, S.**, Leu, N.A., McLaughlin, K.J., Stark, A., Sachidanandam, R., Pillai, R.S., Wang, P.J. (2010). Mouse MOV10L1 associates with Piwi proteins and is an essential component of the Piwi-interacting RNA (piRNA) pathway. *Proc Natl Acad Sci U S A* 107(26):11841-6. [PMID: 20534472]
13. Pan, J., **Eckardt, S.**, Leu, N.A., Buffone, M.G., Zhou, J., Gerton, G.L., McLaughlin, K.J., Wang, P.J. (2009). Inactivation of Nxf2 causes defects in male meiosis and age-dependent depletion of spermatogonia. *Dev Biol.* 330(1):167-74. [PMID:19345203]
14. **Eckardt, S.**, Dinger, T.C., Kurosaka, S., Leu, N.A., Muller, A.M. and McLaughlin, K.J. (2008). In vivo and in vitro differentiation of uniparental embryonic stem cells into hematopoietic and neural cell types. *Organogenesis* 4(1):33-41. [PMID: 19279713]
15. Dinger, T.C., **Eckardt, S.**, Choi, S. W., Camarero, G., Kurosaka, S., Hornich, V., McLaughlin, K.J. and Muller, A.M. (2008). Androgenetic embryonic stem cells form neural progenitor cells in vivo and in vitro. *Stem Cells* 26(6):1474-83. [PMID: 18369101]
16. Yang, F., **Eckardt S.**, Leu, N.A., McLaughlin, K.J., and Wang, P.J. (2008). Mouse TEX15 is essential for DNA double-strand break repair and chromosomal synapsis during male meiosis. *Journal of Cell Biology* 180(4):673-679. [PMID: 18283110]
17. Yang, F., Leu, N.A., **Eckardt, S.**, McLaughlin, K.J., and Wang, P.J. (2008). Meiotic failure in male mice lacking an X-linked factor. *Genes and Development* 22:682 - 691. [PMID: 18316482]
18. Kurosaka, S., **Eckardt S.**, Ealy, A.D., and McLaughlin, K.J. (2007). Regulation of blastocyst stage gene expression and outgrowth interferon tau activity of somatic cell clone aggregates. *Cloning and Stem Cells* 9(4):630-41. [PMID: 18154522]
19. **Eckardt, S.**, Leu, N. A., Bradley, H.L., Kato, H., Bunting K.D., and McLaughlin K.J. (2007). Hematopoietic reconstitution with androgenetic and gynogenetic stem cells. *Genes and Development* 21(4):409-19. [PMID: 17322401]
20. Tolkunova E., Cavaleri F., **Eckardt S.**, Reinbold R., Christenson L.K., Scholer H.R., Tomilin A. (2006) *Stem Cells* Jan;24(1):139-44. Epub 2005 Oct 6. The caudal-related protein cdx2 promotes trophoblast differentiation of mouse embryonic stem cells. [PMID: 16210407]
21. **Eckardt, S.**, Leu, N.A., Kurosaka, S., McLaughlin, K.J. (2005). Differential reprogramming of somatic cell nuclei after transfer into mouse cleavage stage blastomeres. *Reproduction*, 129(5):547-56. [PMID: 15855618]
22. Kurosaka, S., **Eckardt, S.**, McLaughlin K.J. (2004). Pluripotent lineage definition in bovine embryos by Oct4 transcript localization. *Biology of Reproduction* 71(5):1578-82. [PMID: 15229144]
23. Boiani, M., **Eckardt, S.**, Leu, N.A., Scholer, H.R. and McLaughlin, K.J. (2003). Pluripotency deficit in clones overcome by clone-clone aggregation: epigenetic complementation? *EMBO Journal* 22(19):5304-12. [PMID: 14517267]
24. Boiani, M., **Eckardt, S.**, Scholer, H.R. and McLaughlin, K.J. (2002). Oct4 distribution and level in mouse clones: consequences for pluripotency. *Genes and Development* 16(10):1209-1219. [PMID: 12023300]
25. **Eckardt, S.**, Romby, P., und Sczakiel, G. (1997). Implications of RNA structure on the annealing of a potent antisense RNA directed against the human immunodeficiency virus type 1. *Biochemistry* 1997 Oct 21;36(42):12711-21. [PMID: 9335527]
26. Köhr, G., **Eckardt, S.**, Lüddens, H., Monyer, H., and Seeburg, P.H. (1994). NMDA Receptor Channels: Subunit-Specific Potentiation by Reducing Agents. *Neuron* 12, 1031-1040. [PMID: 7514425]

Editorials, Reviews and Chapters

1. **Eckardt, S.**, McLaughlin, K.J. and Willenbring, H. (2011). Mouse chimeras as a system to investigate development, cell and tissue function, disease mechanisms and organ regeneration. *Cell Cycle*. 2011 Jul 1;10(13). [Epub ahead of print][PMID: 21606677]
2. **Eckardt, S.** and McLaughlin, K.J. (2008). Production of Uniparental Embryonic Stem Cell Lines, *Trends in Stem Cell Biology and Technology*, H. Baharvand, Editor. Humana Press.
3. **Eckardt, S.** and McLaughlin, K.J. (2008). Transplantation of chimeric fetal liver to study hematopoiesis. *Methods in Molecular Biology* 430:195-211. [PMID: 18370301]
4. **Eckardt, S.**, Kurosaka, S. and McLaughlin, K.J. (2005). Epigenetics and imprint resetting in cloned animals, in *Genetics, Genomics, Proteomics and Bioinformatics*, L.B. Borde, et al., Editors, John Wiley & Sons Ltd., London.
5. **Eckardt, S.** and McLaughlin, K.J. (2004). Interpretation of reprogramming to predict success in somatic cell cloning. *Animal Reproduction Science* 82-83:97-108. [PMID: 15271446]

Peer Reviewed Abstracts

1. **Eckardt, S.**, Leu, N.A, and McLaughlin, K.J. (2004). Developmental potential of clone cells in murine clone-fertilized aggregation chimeras. *Reprod Fertil Dev* 16 (1-2): 141.
2. Kurosaka, S., **Eckardt, S.**, Friez, M.K., Leu, N.A, Reinbold, R., and McLaughlin, K.J. (2004). Spatial expression of Oct4 is normally regulated in preimplantation stage bovine somatic cell clones. *Reprod Fertil Dev* 16 (1-2): 147.
3. **Eckardt, S.**, Leu, N.A., and McLaughlin, K.J. (2003). Reprogramming of somatic cell nuclei in cleavage stage blastomeres. *Theriogenology* Jan 1;59(1):249.
4. **Eckardt, S.**, Boiani, M., Friez, M.K., Schöler, H.R., and McLaughlin, K.J. (2002). Mouse Clone Blastocysts: Gene Expression and Outgrowth Formation. *Theriogenology* Jan 1;57(1):411.