

Key Publications

Human Renal Proximal Tubular Epithelial Cells (RPTEC/TERT1)

Aschauer L, et al. (2015) Expression of xenobiotic transporters in the human renal proximal tubule cell line RPTEC/TERT1. *Toxicol In Vitro*. 2015 Dec 10. pii: S0887-2333(14)00243-4 [PMID 25500123]



Kramer N.I., et al. (2015) Biokinetics in repeated-dosing in vitro drug toxicity studies. *Toxicol In Vitro*. 2015 Sep 8. pii: S0887-2333(15)00218-0. [PMID 26362508]



Slyne J, et al., (2105) New developments concerning the proximal tubule in diabetic nephropathy: in vitro models and mechanisms. *Nephrol Dial Transplant*. 2015 Aug;30. [PMID 26209740]



Ranninger C., et al. (2015) Nephron Toxicity Profiling via Untargeted Metabolome Analysis Employing a High Performance Liquid Chromatography-Mass Spectrometry-based Experimental and Computational Pipeline. *J Biol Chem*. 2015 Jul 31;290(31):19121-32. [PMID 26055719]



Simon-Friedt BR, et al. (2015) The RPTEC/TERT1 Cell Line as an Improved Tool for In Vitro Nephrotoxicity Assessments. *Biol Trace Elem Res*. 2015 Jul;166(1):66-71. [PMID 25893367]



Maschmeyer I, et al. (2015) A four-organ-chip for inter-connected long-term co-culture of human intestine, liver, skin and kidney equivalents. *Lab Chip*. 2015 Jun 21;15(12):2688-99. [PMID 25996126]



Fliedl L, et al. (2015) Optimisation of a quantitative PCR based method for Plasmid Copy Number Determination in Human Cell Lines. *N Biotechnol*. 2015 Mar 18. pii: S1871-6784(15)00046-1. [PMID 25796475].



Limonciel A., et al. (2015) Transcriptomics hit the target: Monitoring of ligand-activated and stress response pathways for chemical testing. *Toxicol In Vitro*. 2015 Jan 13. pii: S0887-2333(14)00251-3. [PMID 25596134]



Crean D., et al. (2014) Development of an in vitro renal epithelial disease state model for xenobiotic toxicity testing. *Toxicol In Vitro*. 2014 Dec 20. pii: S0887-2333(14)00239-2. [PMID 25536518]



Aschauer L, et al. (2015) Application of RPTEC/TERT1 cells for investigation of repeat dose nephrotoxicity: A transcriptomic study. *Toxicol In Vitro*. 2015 Dec 25;30(1 Pt A):106-16. [PMID 25450743]



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Wilmes A, et al. (2015) Mechanism of cisplatin proximal tubule toxicity revealed by integrating transcriptomics, proteomics, metabolomics and biokinetics. *Toxicol In Vitro*. 2015 Dec 25;30(1 Pt A):117-27. [PMID 25450742]



Wilmes A, et al. (2014) Evidence for a role of claudin 2 as a proximal tubular stress responsive paracellular water channel. *Toxicol Appl Pharmacol*. 2014 Sep 1;279(2):163-72 [PMID 24907557]



Simon BR, et al. (2014) Cadmium alters the formation of benzo[a]pyrene DNA adducts in the RPTEC/TERT1 human renal proximal tubule epithelial cell line. *Toxicol Rep*. 2014 Jul 14;1:391-400. [PMID 25170436]



Jennings P, Crean D, Aschauer L, Limonciel A, Moenks K, Kern G, Hewitt P, Lhotta K, Lukas A, Wilmes A, Leonard MO. (2015) Interleukin-19 as a translational indicator of renal injury. *Arch Toxicol*. 2015 Jan;89(1):101-6. doi: 10.1007/s00204-014-1237-3. Epub 2014 Apr 9. [PMID 24714768]



Fliedl L, Wieser M, Manhart G, Gerstl MP, Khan A, Grillari J, Grillari-Voglauer R. (2014) Controversial role of gamma-glutamyl transferase activity in cisplatin nephrotoxicity. *ALTEX*. 2014;31(3):269-78. doi: Epub 2014 Mar 21. [PMID 24664430]



Aschauer L, et al. (2013) Delineation of the Key Aspects in the Regulation of Epithelial Monolayer Formation. *Mol Cell Biol*. 2013 Jul;33(13):2535-50. [PMID 23608536]



Radford R, Slattery C, Jennings P, Blacque O, Pfaller W, Gmuender H, Van Delft J, Ryan MP, McMorro T. (2012) Carcinogens induce loss of the primary cilium in human renal proximal tubular epithelial cells independently of effects on the cell cycle. *Am J Physiol Renal Physiol*. 2012 Apr 15;302(8):F905-16. doi: 10.1152/ajprenal.00427.2011. Epub 2012 Jan 18. [PMID 22262483]



Erratum in: *Am J Physiol Renal Physiol*. 2013 Sep 1;305(5):F796. Blaque, Oliver [corrected to Blacque, Oliver]. [PMID 22262483]



Wilmes A, Limonciel A, Aschauer L, Moenks K, Bielow C, Leonard MO, Hamon J, Carpi D, Ruzek S, Handler A, Schmal O, Herrgen K, Bellwon P, Burek C, Truisi GL, Hewitt P, Di Consiglio E, Testai E, Blaauboer BJ, Guillou C, Huber CG, Lukas A, Pfaller W, Mueller SO, Bois FY, Dekant W, Jennings P. (2013) Application of integrated transcriptomic, proteomic and metabolomic profiling for the delineation of mechanisms of drug induced cell stress. *J Proteomics*. 2013 Feb 21;79:180-94. [PMID 23238060]



Limonciel A, Wilmes A, Aschauer L, Radford R, Bloch KM, McMorro T, Pfaller W, van Delft JH, Slattery C, Ryan MP, Lock EA, Jennings P. (2012) Oxidative stress induced by potassium bromate exposure results in altered tight junction protein expression in renal proximal tubule cells. *Arch Toxicol*. 2012 Nov;86(11):1741-51. doi: 10.1007/s00204-012-0897-0. Epub 2012 Jul 4. [PMID 22760423]



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Jennings P, Weiland C, Limonciel A, Bloch KM, Radford R, Aschauer L, McMorrow T, Wilmes A, Pfaller W, Ahr HJ, Slattery C, Lock EA, Ryan MP, Ellinger-Ziegelbauer H. (2012) Transcriptomic alterations induced by Ochratoxin A in rat and human renal proximal tubular in vitro models and comparison to a rat in vivo model. Arch Toxicol. 2012 Apr;86(4):571-89. doi: 10.1007/s00204-011-0780-4. Epub 2011 Nov 29. [PMID 22124623]



Sarkozi R. et al. (2011) Oncostatin M is a novel inhibitor of TGF- β 1-induced matricellular protein expression. Am J Physiol Renal Physiol 2011 Nov, 301(5):F1014-F1025. [PMID 21816755]



Limonciel A, Aschauer L, Wilmes A, Prajczek S, Leonard MO, Pfaller W, Jennings P. (2011) Lactate is an ideal non-invasive marker for evaluating temporal alterations in cell stress and toxicity in repeat dose testing regimes. Toxicol In Vitro. 2011 Dec;25(8):1855-62. doi: 10.1016/j.tiv.2011.05.018. Epub 2011 May 24. [PMID 21635945]



Ellis JK, Athersuch TJ, Cavill R, Radford R, Slattery C, Jennings P, McMorrow T, Ryan MP, Ebbels TM, Keun HC. (2011) Metabolic response to low-level toxicant exposure in a novel renal tubule epithelial cell system. Mol Biosyst. 2011 Jan;7(1):247-57. doi: 10.1039/c0mb00146e. Epub 2010 Nov 19. [PMID 21103459]



Wieser M, Stadler G, Jennings P, Streubel B, Pfaller W, Ambros P, Riedl C, Katinger H, Grillari J, Grillari-Voglauer R. (2008) hTERT alone immortalizes epithelial cells of renal proximal tubules without changing their functional characteristics. Am J Physiol Renal Physiol. 2008 Nov;295(5):F1365-75. doi: 10.1152/ajprenal.90405.2008. Epub 2008 Aug 20. [PMID 18715936]

