

Literaturliste 2012-2014

Ulbrich C, Wehland M, Pietsch J, Aleshcheva G, Wise P, van Loon J, Magnusson N, Infanger M, Grosse J, Eilles C, Sundaresan A, Grimm D: The impact of simulated and real microgravity on bone cells and mesenchymal stem cells. *Biomed Res Int.* 2014;2014:928507. doi: 10.1155/2014/928507.

Grimm D, Wehland M, Pietsch J, Aleshcheva G, Wise P, van Loon J, Ulbrich C, Magnusson NE, Infanger M, Bauer J: Growing Tissues in Real and Simulated Microgravity: New Methods for Tissue Engineering. *Tissue Eng Part B Rev.* 2014 Apr 4. [Epub ahead of print]

Warnke E, Pietsch J, Wehland M, Bauer J, Infanger M, Görög M, Hemmersbach R, Braun M, Ma X, Sahana J, Grimm D: Spheroid formation of human thyroid cancer cells under simulated microgravity: a possible role of CTGF and CAV1. *Cell Commun Signal.* 2014;12:32.

Ma X, Pietsch J, Wehland M, Schulz H, Saar K, Hübner N, Bauer J, Braun M, Schwarzwälder A, Segerer J, Birlem M, Horn A, Hemmersbach R, Wasser K, Grosse J, Infanger M, Grimm D: Differential gene expression profile and altered cytokine secretion of thyroid cancer cells in space. *FASEB J.* 2014;28:813-835.

Ma X, Sickmann A, Pietsch J, Wildgruber R, Weber G, Infanger M, Bauer J, Grimm D: Proteomic differences between microvascular endothelial cells and the EA.hy926 cell line forming three-dimensional structures. *Proteomics.* 2014;14:689-698.

Grosse J, Warnke E, Wehland M, Pietsch J, Pohl F, Wise P, Magnusson NE, Eilles C, Grimm: Mechanisms of apoptosis in irradiated and sunitinib-treated follicular thyroid cancer cells. *Apoptosis.* 2014;19:480-490.

Aleshcheva G, Sahana J, Ma X, Hauslage J, Hemmersbach R, Egli M, Infanger M, Bauer J, Grimm D: Changes in morphology, gene expression and protein content in chondrocytes cultured on a random positioning machine. *PLoS One.* 2013;8:e79057.

Grimm D, Bauer J, Hemmersbach R, Ulbrich C, Pietsch J, Wehland M, Infanger M: Biotechnological use of weightlessness for medical research -analysis of human cells

after weightlessness. *Flug u Reisemed.* 2013;20:173-178.

Grosse J, Warnke E, Pohl F, Magnusson NE, Wehland M, Infanger M, Eilles C, Grimm D. Impact of sunitinib on human thyroid cancer cells. *Cell Physiol Biochem.* 2013;32:154-170.

Pietsch J, Ma X, Wehland M, Aleshcheva G, Schwarzwälder A, Segerer J, Birlem M, Horn A, Bauer J, Infanger M, Grimm D. Spheroid formation of human thyroid cancer cells in an automated culturing system during the Shenzhou-8 Space mission. *Biomaterials.* 2013;34:7694-7670.

Ma X, Wehland M, Aleshcheva G, Hauslage J, Wasser K, Hemmersbach R, Infanger M, Bauer J, Grimm D. Interleukin-6 Expression under Gravitational Stress Due to Vibration and Hypergravity in Follicular Thyroid Cancer Cells. *PLoS One.* 2013;8:e68140.

Ma X, Wehland M, Schulz H, Saar K, Hübner N, Infanger M, Bauer J, Grimm D. Genomic approach to identify factors that drive the formation of three-dimensional structures by EA.hy926 endothelial cells. *PLoS One.* 2013;8:e64402.

Wehland M, Bauer J, Magnusson NE, Infanger M, Grimm D. Biomarkers for anti-angiogenic therapy in cancer. *Int J Mol Sci.* 2013;14:9338-9364.

Wehland M, Ma X, Braun M, Hauslage J, Hemmersbach R, Bauer J, Grosse J, Infanger M, Grimm D. The impact of altered gravity and vibration on endothelial cells during a parabolic flight. *Cell Physiol Biochem.* 2013;31:432-451.

Pietsch J, Riwaldt S, Bauer J, Sickmann A, Weber G, Grosse J, Infanger M, Eilles C, Grimm D. Interaction of proteins identified in human thyroid cells. *Int J Mol Sci.* 2013;14:1164-1178.

Grosse J, Wehland M, Pietsch J, Schulz H, Saar K, Hübner N, Eilles C, Bauer J, Abou-EI-Ardat K, Baatout S, Ma X, Infanger M, Hemmersbach R, Grimm D. Gravity-sensitive signaling drives 3-dimensional formation of multicellular thyroid cancer spheroids. *FASEB J.* 2012;26:5124-5140.

Pietsch J, Sickmann A, Weber G, Bauer J, Egli M, Wildgruber R, Infanger M, Grimm D. Metabolic enzyme diversity in different human thyroid cell lines and their sensitivity

to gravitational forces. *Proteomics* 2012, 12:2539-46.

Wehland M, Bauer J, Infanger M, Grimm D. Target-based Anti-angiogenic Therapy in Breast Cancer. *Curr Pharm Des.* 2012;18:4244-4257.

Ma X, Wildgruber R, Bauer J, Weber G, Infanger M, Grosse J, Grimm D. The use of sigmoid pH gradients in free-flow isoelectric focusing of human endothelial cell proteins. *Electrophoresis* 2012;33:1349-1355.

Grosse J, Wehland M, Pietsch J, Ma X, Ulbrich C, Schulz H, Saar K, Hübner N, Hauslage J, Hemmersbach R, Braun M, van Loon J, Vagt N, Infanger M, Eilles C, Egli M, Richter P, Baltz T, Einspanier R, Sharbati S, Grimm D: Short-term weightlessness produced by parabolic flight maneuvers altered gene expression patterns in human endothelial cells. *FASEB J.* 2012;26:639-655.