

## Publikationen

### Originalarbeiten

Adamzyk C., Emonds T., Falkenstein J., Tolba R., Jahnen-Dechent W., Lethaus B., **Neuss S.** Characterization of ovine MSC is strongly dependent on the cell culture medium. *Stem Cells International*, 2013

Blaeser A., Duarte Campos D.F., Weber M., **Neuss S.**, Theek B., Fischer H., Jahnen-Dechent W. [Biofabrication under fluorocarbon: a novel freeform fabrication technique to generate high aspect ratio tissue-engineered constructs.](#) *Biores Open Access*. 2013 Oct;2(5):374-84.

van de Kamp J., Jahnen-Dechent W., Rath B., Knuechel R., **Neuss S.** Hepatocyte growth factor-loaded biomaterials for mesenchymal stem cell recruitment. *Stem Cells International*, 2013

Schickle K., Korsten A., Weber M., Bergmann C., **Neuss S.**, Fischer H. Towards osseointegration of bioinert ceramics: Can biological agents be immobilized on alumina substrates using self-assembled monolayer technique? *J Eur Ceram Soc.* *accepted (IF: 2.353)*

Kupper C.E., Böcker S., Liu H., Adamzyk C., van de Kamp J., Recker T., Lethaus B., Jahnen-Dechent W., **Neuss S.**, Müller-Newen G., Elling L. [Fluorescent SNAP-Tag Galectin Fusion Proteins as Novel Tools in Glycobiology.](#) *Curr Pharm Des.* 2013 Feb 14. [Epub ahead of print] *(IF: 3.870)*

Hoss M., Sarić T., Denecke B., Peinkofer G., Bovi M., Groll J., Ko K., Salber J., Halbach M., Schöler H.R., Zenke M., **Neuss S.** [Expansion and differentiation of germline-derived pluripotent stem cells on biomaterials.](#) *Tissue Eng Part A.* 2013 May;19(9-10):1067-1080. *(IF: 4.636)*

Wessels I., Rosenkranz E., Ventura Ferreira M., **Neuss S.**, Zenke M., Rink L., Uciechowski P. [Activation of IL-1 \$\beta\$  and TNF \$\alpha\$  genes is mediated by the establishment of permissive chromatin structures during monopoiesis.](#) *Immunobiology.* 2013 Jun;218(6):860-868. *(IF: 3.205)*

Duarte Campos D.F., Blaeser A., Weber M., Jäkel J., **Neuss S.**, Jahnen-Dechent W., Fischer H. [Three-dimensional printing of stem cell-laden hydrogels submerged in a hydrophobic high-density fluid.](#) *Biofabrication.* 2013 Mar;5(1):015003. *(IF: 3.480)*

Ferreira M.S., Jahnen-Dechent W., Labude N., Bovi M., Hieronymus T., Zenke M., Schneider R.K., **Neuss S.** [Cord blood-hematopoietic stem cell expansion in 3D fibrin scaffolds with stromal support.](#) *Biomaterials.* 2012 Oct;33(29):6987-97. doi: 10.1016/j.biomaterials.2012.06.029. Epub 2012 Jul 15. Erratum in: *Biomaterials.* 2012 Dec;33(35):9165. Neurs, Sabine [corrected to Neuss, Sabine]. *(IF: 7,883)*

Ferreira M.S., Schneider R.K., Wagner W., Jahnen-Dechent W., Labude N., Bovi M., Piroth D., Knüchel R., Hieronymus T., Müller A.M., Zenke M., **Neuss S.** Two-dimensional polymer-based cultures expand cord blood-derived hematopoietic stem cells and support engraftment of NSG mice. Tissue Eng Part C Methods. 2013 Jan;19(1):25-38. (IF: 4.636)

Ventura Ferreira M.S., Labude N., Walenda G., Adamzyk C., Wagner W., Piroth D., Müller A.M., Knüchel R., Hieronymus T., Zenke M., Jahnen-Dechent W., **Neuss S.** Ex vivo expansion of cord blood-CD34(+) cells using IGFBP(2) and Angptl-5 impairs short-term lymphoid repopulation in vivo. J Tissue Eng Regen Med. 2012 Jun 1. doi: 10.1002/term.1486. [Epub ahead of print] (IF: 3.534)

Bartneck M, Keul HA, Wambach M, Bornemann J, Gbureck U, Chatain N, **Neuss S**, Tacke F, Groll J, Zwadlo-Klarwasser G. Effects of nanoparticle surface-coupled peptides, functional endgroups, and charge on intracellular distribution and functionality of human primary reticuloendothelial cells. Nanomedicine. 2012 Nov;8(8):1282-1292. (IF: 6.202)

van de Kamp J., Kramann R., Anraths J., Schöler H.R., Ko K., Knüchel R., Zenke M., **Neuss S.**, Schneider R.K. Epithelial morphogenesis of germline-derived pluripotent stem cells on organotypic skin equivalents in vitro. Differentiation. 2012 Mar;83(3):138-147. (IF: 3.069)

Hoss M., Apel C., Dhanasingh A., Suschek C.V., Hemmrich K., Salber J., Zenke M., **Neuss S.** Integrin  $\alpha 4$  impacts on differential adhesion of preadipocytes and stem cells on synthetic polymers. J Tissue Eng Regen Med. 2013 Apr;7(4):312-23. (IF: 3.534)

Kramann R., Couson S.K., **Neuss S.**, Floege J., Knüchel R., Schneider R.K. Uraemia disrupts the vascular niche in a 3D co-culture system of human mesenchymal stem cells and endothelial cells. Nephrol Dial Transplant. 2012 Jul;27(7):2693-2702. (IF: 3.564)

Leisten I., Kramann R., Ventura Ferreira M.S., Bovi M., **Neuss S.**, Ziegler P., Wagner W., Knüchel R., Schneider R.K. 3D co-culture of hematopoietic stem and progenitor cells and mesenchymal stem cells in collagen scaffolds as a model of the hematopoietic niche. Biomaterials. 2012 Feb; 33(6):1736-1747. (IF: 7.883)

Leisten I., Ferreira M., **Neuss S.**, Wagner W., Knüchel R., Schneider R.K. Interaction of hematopoietic and mesenchymal progenitor cells in an in vitro bone marrow microenvironment. Pathologe 2011 April; 32 Suppl 1:19. (IF: 0.669)

Ferreira M.V., Labude N., Piroth D., Jahnen-Dechent W., Knüchel R., Hieronymus T., Zenke M., **Neuss S.** Compatibility of different polymers for cord blood-derived hematopoietic progenitor cells. J Mater Sci Mater Med 23(1):109-116. 2011. (IF: 2,487)

**Neuss S.**, Apel C., Bornemann J, Bovi M, Denecke B., Dhanasingh A., Gan L, Gröger A., Hemmrich K., Lin Q, Perez-Bouza A., Salber J., Wöltje M., Knüchel R., Zenke M. Transcriptome analysis of MSC and MSC-derived osteoblasts on Resomer LT706 and

PCL: Impact of biomaterial substrate on osteogenic differentiation. PLoS One. 6(9):e23195. 2011. (IF: 4,411)

Schneider R.K., Knüchel R., **Neuss S.** Mesenchymal stem cells and their interaction with biomaterials: potential applications in tissue engineering. Pathologe 32 Suppl 2:296-303. 2011. (IF: 0,534)

Kramann R., Couson S.K., **Neuss S.**, Kunter U., Bovi M., Bornemann J., Knüchel R., Jahnen-Dechent W., Floege J., Schneider R.K. Exposure to uremic serum induces a procalcific phenotype in human mesenchymal stem cells. Arterioscler Thromb Vasc Biol 31(9):e45-54. 2011. (IF: 7,215)

Ferreira M.V., Jahnen-Dechent W., **Neuss S.** Standardization of automated cell-based protocols for toxicity testing of biomaterials. J Biomol Screen 16(6):647-654. 2011. (IF: 2,5)

Walenda T., Bokermann G., Ventura Ferreira M.S., Piroth D.M., Hieronymus T., **Neuss S.**, Zenke M., Ho A.D., Müller A.M., Wagner W. Synergistic effects of growth factors and mesenchymal stromal cells for expansion of hematopoietic stem and progenitor cells. Exp Hematol 39(6):617-628. 2011. (IF: 3,198)

Pfannkuche K., **Neuss S.**, Pillekamp F., Frenzel L., Attia W., Hannes T., Salber J., Hoss M., Zenke M., Fleischmann B., Hescheler J., Saric T. Fibroblasts facilitate the engraftment of embryonic stem cell-derived cardiomyocytes on three-dimensional collagen matrices and aggregation in hanging drops. Stem Cells Dev. 2010 Oct;19(10):1589-99. (IF: 4.791)

Schneider R.K., **Neuss S.**, Knüchel R., Perez-Bouza A. Mesenchymal stem cells for bone tissue engineering. Pathologe 31 Suppl. 2:138-146. 2010. (IF: 0,534)

Schneider R.K., Anraths J., Kramann R., Bornemann J., Bovi M., Knüchel R., **Neuss S.** The role of biomaterials in the direction of mesenchymal stem cell properties and extracellular matrix remodelling in dermal tissue engineering. Biomaterials 31(31):7948-7959. 2010. (IF: 7,883)

Schneider R.K., Püllen A., Knüchel R., Perez-Bouza A., **Neuss S.** Long-term survival and characterisation of human umbilical cord-derived mesenchymal stem cells on dermal equivalents. Differentiation 79(3):182-93. 2010. (IF: 3,069)

Schneider R.K., Puellen A., Kramann R., Raupach K., Bornemann J., Knuechel R., Pérez-Bouza A. and **Neuss S.** The osteogenic differentiation of adult bone marrow and perinatal umbilical mesenchymal stem cells and matrix remodelling in three-dimensional collagen scaffolds. Biomaterials 31(3):467-80. 2010. (IF: 7,883)

Pan Y., Leifert A., Ruau D., **Neuss S.**, Bornemann J., Schmid G., Brandau W., Simon W., Jahnen-Dechent W. Gold Nanoparticles of 1.4 nm Trigger Necrosis by Oxidative Stress and Mitochondrial Damage. Small 5(18): 2067-2076. 2009. (IF: 7,336)

**Neuss S.**, Cappi B., Salber J., Telle R., Knüchel R., Fischer H. Cytocompatibility of high strength non-oxide ceramics. *J Biomed Mater Res A* 93(1):67-76. 2010. (IF: 3,044)

**Neuss S.**, Schneider R., Tietze L., Knüchel R., Jahnen-Dechent W. Secretion of fibrinolytic enzymes enables human mesenchymal stem cell invasion into fibrin clots. *Cells Tissues Organs* 191(1):36-46. 2010. (IF: 2,302)

Montzka K, Lassonczyk N, Tschöke B, **Neuss S**, Führmann T, Franzen R, Smeets R, Brook G, Wöltje M. Neural differentiation potential of human bone marrow derived mesenchymal stromal cells: misleading marker gene expression. *BMC Neuroscience* 10:16. 2009. (IF: 3,091)

Schuh A, Liehn EA, Sasse A, Schneider R, Neuss S, Weber C, Kelm M, Merx MW. [Improved left ventricular function after transplantation of microspheres and fibroblasts in a rat model of myocardial infarction.](#) *Basic Res Cardiol* 104(4):403-411. 2009 (IF: 6,128)

**Neuss S.**, Blumenkamp I., Stainforth R., Boltersdorf D., Jansen M., Butz N., Perez-Bouza A., Knüchel R. The poly( $\epsilon$ -caprolactone)dimethacrylate network as candidate for cell-based tissue engineering applications using shape memory effect technology. *Biomaterials* 30(9):1697-1705. 2009. (IF: 7,883)

**Neuss S.**, Stainforth R., Salber J., Schenck P., Bovi M., Knüchel R., Perez-Bouza A. Long-term survival and bipotent terminal differentiation of human mesenchymal stem cells (hMSC) in combination with a commercially available three-dimensional collagen scaffold. *Cell Transplantation* 17:977-986. 2008. (IF: 6,204)

Pan Y., **Neuss S.**, Leifert A., Fischler M., Wen F., Ulrich S., Schmid G., Brandau W., Jahnen-Dechent W. Size dependent cytotoxicity of gold nanoparticles. *Small* 3(11):1941-1949. 2007. (IF: 7,336)

**Neuss S.**, Apel C., Buttler P., Denecke B., Dhanasingh A., Ding X., Gröger A., Hemmrich K., Herr A., Jahnen-Dechent W., Mastitskaya, S., Perez-Bouza A., Rosewick S., Salber J., Wöltje M., Zenke M. Assessment of stem cell/biomaterial combinations for stem cell-based tissue engineering. *Biomaterials* 29:302-313. 2008. (IF: 7,883)

Schneider R., **Neuss S.**, Stainforth R., Laddach N., Bovi M., Knüchel-Clarke R., Perez-Bouza A. Three-dimensional epidermis-like growth of human mesenchymal stem cells on dermal equivalents: contribution to tissue organization by adaptation of myofibroblastic phenotype and function. *Differentiation* 76(2):156-67. 2008. (IF: 3,069)

Markowicz M., Heitland A., Steffens G.C.M., **Neuss S.**, Pallua N. Human mesenchymal stem cell implantation and collagen modification as a tool for tissue engineering. *European Journal of Plastic Surgery* 28(4):284-289. 2005. (IF: nicht gelistet)

Markowicz M., Koellensperger E., **Neuss S.**, Koenigschulte S., Bindler C., Pallua N. Human bone marrow mesenchymal stem cells seeded on modified collagen improve dermal regeneration in vivo. *Cell Transplantation* 15(8-9):723-732. 2006 (IF: 6,204)

Jansen M., Lynen-Jansen P., Otto J., Kirtil T., **Neuss S.**, Treutner K.-H., Schumpelick V. The inhibition of tumor cell adhesion on human mesothelial cells (HOMC) by phospholipids in vitro. *Langenbecks Arch Surg* 391(2):96-101. 2006. (IF: 1,951)

Jansen M., Treutner K.H., Schmitz B., Otto J., Jansen P.L., **Neuss S.**, Schumpelick V. Phospholipids reduce gastric cancer cell adhesion to extracellular matrix in vitro. *BMC Gastroenterol.* 4(1):33. 2004. (IF: 2,468)

**Neuss S.**, Becher E., Wöltje M., Tietze L., Jahnen-Dechent W. Functional expression of HGF and HGF receptor/c-met in adult human mesenchymal stem cells suggests a role in cell mobilization, tissue repair and wound healing. *Stem Cells* 22(3):405-414. 2004. (IF: 7,883).

### **Buchbeiträge / Übersichtsarbeiten**

Denecke B., Wöltje M., **Neuss S.** & Jahnen-Dechent W. Tissue Engineering – Combining Cells and Biomaterials into Functional Tissues. In: Hartmann G.M. & Chien S. (eds). *Bioengineering in Cell and Tissue Research*, Springer-Verlag, Berlin, Heidelberg, 2008, 1, p. 193-209.

Eblenkamp M., **Neuss-Stein, S.**, Salber J., Jacobs V. & Wintermantel E. Stammzellen. In: Wintermantel E., & Ha S.-W. (Hrsg.). *Medizintechnik – Life Science Engineering*, Springer-Verlag, Berlin, Heidelberg, 2008, 4, S. 421-447.

Markowicz M., Koellensperger E., **Neuss S.**, Steffens G.C.M. & Pallua N. Enhancing the vascularization of three-dimensional scaffolds: new strategies in tissue regeneration and tissue engineering. In: Ashammakhi N., Reis R.L. & Sun W. (eds). *Topics in Tissue Engineering*, ebook, 2005, 2, Chapter 6, p. 1-15.

Markowicz M., Koellensperger E., **Neuss S.** & Pallua N. Adult bone marrow mesenchymal stem cells as feeder cells for human keratinocytes: New approaches in bilayered skin replacement. In: Ashammakhi N., Reis R.L. & Sun W. (eds). *Topics in Tissue Engineering*, ebook, 2005, 2, Chapter 4, p. 1-12.

**Neuss S.** & Jahnen-Dechent W. Stammzellen in der Medizin. In: *Biologen heute*. Vdbiol, München, 2004/2005, S. 35-51.