

## Publikationen

### 2016

SM Ruff, S Keller, D Wieland, V Wittmann, GEM Tovar, M Bach, **PJ Kluger**: ClickECM: development of a cell-derived extracellular matrix with azide functionalities; *submitted*

A-C Volz, B Huber, A Czaja, **PJ Kluger**: EGF and hydrocortisone as critical factors for the co-culture of adipogenic differentiated ASCs and microvascular endothelial cells; *submitted*

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B Huber, A Link, K Linke, SA Gehrke, M Winnefeld, **PJ Kluger**: Integration of mature adipocytes to build-up a functional three-layered full-skin equivalent. Tissue Engineering Part C Methods 06/2016; DOI:10.1089/ten.TEC.2016.0141

B Huber, S Engelhardt, W Meyer, H Krüger, A Wenz, V Schönhaar, GEM Tovar, **PJ Kluger**, K Borchers: Blood-Vessel Mimicking Structures by Stereolithographic Fabrication of Small Porous Tubes Using Cytocompatible Polyacrylate Elastomers, Biofunctionalization and Endothelialization. 04/2016; 7(2). DOI:10.3390/jfb7020011

A-C Volz, B Huber, **PJ Kluger**: Adipose-derived stem cell differentiation as a basic tool for vascularized adipose tissue engineering. Differentiation 03/2016; DOI:10.1016/j.diff.2016.02.003

B Huber, AM Czaja, **PJ Kluger**: Influence of epidermal growth factor (EGF) and hydrocortisone on the co-culture of mature adipocytes and endothelial cells for vascularized adipose tissue engineering. Cell Biology International 02/2016; 40(5). DOI:10.1002/cbin.10595

### 2015

A Wenz, K Janke, E Hoch, GEM Tovar, K Borchers, **PJ Kluger**: Hydroxyapatitemodified gelatin bioinks for bone bioprinting. BioNanoMaterials 01/2016; DOI:10.1515/bnm-2015-0018 7

B Huber, A-C Volz, **PJ Kluger**: Understanding the cross-talk of mature adipocytes and endothelial cells in physiological fatty tissue for vascularized adipose tissue engineering. 08/2015, Cell and Tissue Res; DOI: 10.1007/s00441-015-2274-9

MA Surmeneva, C Kleinhans, G Vacun, **PJ Kluger**, V Schönhaar, M Müller, SB Hein, A Wittmar, M Ulbricht, O Prymak, C Oehr, RA Surmenev: Nano-hydroxyapatitecoated metal-ceramic composite of iron-tricalcium phosphate: Improving the surface wettability, adhesion and proliferation of mesenchymal stem cells in vitro. Colloids Surf B Biointerfaces. 11/2015; 135: 386–393; DOI: 10.1016/j.colsurfb.2015.07.057.

B Huber and **PJ Kluger**: Decelerating mature adipocyte dedifferentiation by media composition. Tissue Engineering Part C Methods 09/2015; DOI:10.1089/ten.TEC.2015.0166

B Huber, A-C Volz, **PJ Kluger**: How do culture media influence in vitro perivascular cell behavior? Cell Biology International 07/2015; DOI:10.1002/cbin.10515

B Huber, K Borchers, GEM Tovar, **PJ Kluger**: Methacrylated gelatin and mature adipocytes are promising components for adipose tissue engineering. Journal of Biomaterials Applications 05/2015; DOI:10.1177/0885328215587450

C Kleinhans, RR Mohan, G Vacun, T Schwarz, B Haller, Y Sun, A Kahlig, **PJ Kluger**, A Finne-Wistrand, H Walles, J Hansmann: A perfusion bioreactor system efficiently generates cell-loaded bone substitute materials for addressing critical size bone defects. *Biotechnology Journal* 05/2015; DOI:10.1002/biot.201400813

C Kleinhans, G Vacun, R Surmenev, M Surmeneva, **PJ Kluger**: Testing the in vitro performance of hydroxyapatite coated magnesium (AZ91D) and titanium concerning cell adhesion and osteogenic differentiation. 01/2015; DOI:10.1515/bnm-2015-0002

C Kleinhans, FF Schmid, FV Schmid, **PJ Kluger**: Comparison of osteoclastogenesis and resorption activity of human osteoclasts on tissue culture polystyrene and on natural extracellular bone matrix in 2D and 3D. *Journal of Biotechnology* 01/2015; 205: 101–110 205. DOI:10.1016/j.jbiotec.2014.11.039

### 2013

Kleinhans, C.; Barz, J.; Wurster, S.; Willig, M.; Oehr, C.; Müller, M.; Walles, H.; Hirth, T.; Kluger, P.J.: Ammonia plasma treatment of polystyrene surfaces enhances proliferation of primary human mesenchymal stem cells and human endothelial cells; *Biotechnology journal* 8 (2013), No.3, pp.327-337

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Schleicher, M.; Hansmann, J.; Elkin, B.; Kluger, P.J.; Liebscher, S.; Huber, A.J.T.; Fritze, O.; Schille, C.; Müller, M.; Schenke-Layland, K.; Seifert, M.; Walles, H.; Wendel, H.-P.; Stock, U.A.: Oligonucleotide and parylene surface coating of polystyrene and ePTFE for improved endothelial cell attachment and hemocompatibility *International journal of biomaterials*. Online journal (2012), Art. 397813, 14 S.

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Novosel E.C., Kleinhans C. and Kluger PJ: "Vascularization is the Key Challenge in Tissue Engineering", *Advanced drug delivery reviews*, Vol. 63, Issue.4-5, S.300-311

Kluger P.J., Wyrwa R., Weisser J., Maierle J. Votteler M., Rode C., Schnabelrauch M. Walles H. and Schenke-Layland K.: "Electrospun Non- Woven Matrix of Poly(D/L-lactide-co-L-lactide) – A Suitable Scaffold Material for Soft Tissue Engineering"; *J Mater Sci Mater Med.*; Vol. 21; S. 2665-71