Research profile

Prof. Dr. habil. J. Barbara Nebe

1) General information

- Nebe, J. Barbara, apl. Prof. Dr. agr. habil.
- Department of Cell Biology, Rostock University Medical Center (UMR), Schillingallee 69, 18057 Rostock, +49 381-494-7771, barbara.nebe@med.uni-rostock.de
- apl. Prof. for Cell Biology
- 2 children

2) University training and degree

Animal Sciences (1985-1991), University of Rostock, Dipl.-Ing. agr., Prof. Dr. sc. med. D. Falkenhagen, diploma thesis: "Principle investigations on hollow fiber coatings with collagen I"

3) Advanced academic qualifications

Habilitation:	2005, joint habilitation process of Faculty of Medicine and Faculty of Agricultural Science, University of Rostock, Prof. Dr. med. vet. habil. E. Mohr, Prof. Dr. med. habil. R. Schmidt, Prof. Dr. C. J. Kirkpatrick (Mainz)
Promotion:	1995, animal physiology, University of Rostock, Prof. Dr. rer. nat. J. Rychly, Prof. Dr. sc. med. vet. W. Methling, Prof. Dr. H. Robenek (Münster), *summa cum laude*

4) Postgraduate professional career

since 2013	Chair, Dept. of Cell Biology, Rostock University Medical Center
2011	apl. Professor for Cell Biology, University of Rostock
2010	tertio loco, W2 Plasma Medicine, University of Greifswald
2006-2012	Vice-chair, Dept. of Cell Biology, Rostock University Medical Center
1991-2006	Scientific assistant, Dept. of Clinical Research, Medical Faculty of University of Rostock

5) Other

since 2019	Scientific Board Member PROSEC gGmBH
2019	Poster award: M. Grüning/ELAINE; Intelligent Materials, Kiel
since 2017	Editorial Board Member AIMS Cell and Tissue Engineering
since 2013	Founder member and curatorship member of the National Center for Plasma Medicine e.V.
2008-2013	Member of the Executive Committee of the German Society of Biomaterials (DGBM)
2008-2013	Steering Committee BMBF "Campus PlasmaMed"
2008-2013	Equal Opportunity Commissioners, University of Rostock, UMR
2009-2013	Best poster awards: DGBM (2x) and bone-tec
2002	Best lecture award: 118. NGGG
1996	Joachim-Jungius Price, awarded from the University of Rostock

Organization und Co-Organization of 10 international congresses:
•THERMEC'2018 Paris •THERMEC'2016 International Conference on Processing and Manufacturing of Advanced Materials, Symposium "Biomimetic Materials, Nanostructured Biomaterials & Biological Interactions", Graz •5th International Symposium Interface Biology of Implants (IBI), Rostock-Warnemünde 2015; •4th IBI, Rostock-Warnemünde 2012; •THERMEC'2013 International Conference on Processing and Manufacturing of Advanced Materials, Symposium "Biomimetic Materials, Nanostructured Biomaterials & Biological Interactions", Las Vegas; •THERMEC'2009, Symposium „Functionalized Materials for Therapeutic Applications", Berlin; •3th IBI, Rostock-Warnemünde 2009; •E-MRS Fall Meeting, Symposium J „Surface Functionalization and activation of biomaterials", Warschau 2006; •2d IBI, Rostock-Warnemünde 2006; •1st IBI, Rostock-Warnemünde 2003

Reviewer
Reviewer for Wallenberg Academy Fellows 2015 Stockholm, for Volkswagen foundation, for Margarete-von-Wrangell stipendium, for Carl Zeiss foundation, for Reutlingen University for Applied Sciences
Reviewer for German Research Society DFG: (i) Collaborative Research Center SFB TRR 67, and (ii) Research Units FOR 2180 and FOR 2165

Reviewer for different Journals on request: e.g. Acta Biomaterialia, Advanced Biomaterials, Acta Polytechnica Biomaterials, Biomedical Materials, eCells and Materials, International Journal of Materials, International Journal of Nanomedicine, Int J Artif Org, Journal of Biomedical Materials Research, Part: A, Journal of the Royal Society Interface, Journal of Materials Chemistry B, J Orthop Res, Materials Science and Engineering C, Plasma Processes and Polymers, RSC Advances

Membership Professional Societies:
German Society for Biomaterials (DGBM), National Center for Plasma Medicine (NZPM)

6) Publications

Scopus (01.07.2019): h-index 29

a) Articles with scientific quality assurance, and book publications

[1] Moerke C, Rebl H, Finke B, Dubs M, Nestler P, Airoudj A, Roucoules V, Schnabelrauch M, Koertge A, Anselme K, Helm CA, Nebe JB: Abrogated cell contact guidance on amino-functionalized micro-grooves. ACS Applied Materials & Interfaces. 2017; 9 (12): 10461–10471. doi.org/ 10.1021/acsami.6b16430

[2] Moerke C, Mueller P, Nebe B: Attempted caveolae-mediated phagocytosis of surface-fixed micro-pillars by human osteoblasts. Biomaterials. 2016; 76: 102-114. doi: 10.1016/j.biomaterials.2015.10.030.

[3] Staehlke S, Koertge A, Nebe B: Intracellular calcium dynamics dependent on defined microtopographical features of titanium. Biomaterials. 2015; 46: 48-57.

[4] Kunz F, Rebl H, Quade A, Matschegewski C, Finke B, Nebe JB: Osteoblasts with impaired spreading capacity benefit from the positive charges of plasma polymerized allylamine. European Cells and Materials. 2015; 29: 177-189.

[5] Rebl H, Finke B, Lange R, Weltmann KD, Nebe JB: Impact of plasma chemistry versus titanium surface topography on osteoblast orientation. Acta Biomaterialia. 2012; 8 (10): 3840-3851.

[6] Matschegewski C, Staehlke S, Loeffler R, Lange R, Chai F, Kern DP, Beck U, Nebe JB: Cell architecture–cell function dependencies on titanium arrays with regular geometry. Biomaterials. 2010; 31 (22): 5729-5740.

[7] Nebe JB, Müller L, Luethen F, Ewald A, Bergemann C, Conforto E, Müller FA: Osteoblastic adhesion and function response to biomimetically altered titanium surfaces. Acta Biomaterialia. 2008; 4 (6): 1985-1995.

[8] Finke B, Luethen F, Schroeder K, Mueller PD, Bergemann C, Frant M, Ohl A, Nebe BJ: The effect of positively charged plasma polymerization on initial osteoblastic focal adhesion on titanium surfaces. Biomaterials. 2007; 28 (30): 4521-4534.

[9] Nebe B, Luethen F, Lange R, Beck U: Interface interactions of osteoblasts with structured titanium surfaces and their mathematical correlation. Macromolecular Biosciences. 2007; 7 (5): 567-578.

[10] Lüthen F, Lange R, Becker P, Rychly J, Beck U, Nebe JB: The influence of surface roughness of titanium on beta1- and beta3-integrin adhesion and the organization of fibronectin in human osteoblastic cells. Biomaterials. 2005; 26 (15): 2423-2440.

b) Other Publications

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c) Patents, issued:

[1] Guthoff R, Rychly J, Beck R, Nebe B: New pharmaceutical applications of Mibefradil in the chirurgical ophthalmology. DE 199 54 788, A61K 31/4184 (2006.01)

[2] Bergemann C, Hansmann H, Kunz F, Nebe B, Weissmann V, Wetzel J: JPT-3D-Cellynyzer (Cell reactor). DE 10 2010 064 098.0.

Rostock, 2019-07-01