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**RAT CALVARIAE OSTEOBLAST CELLS**

A tissue engineered 3D printed calcium alkali phosphate bioceramic bone graft enables vascularization and regeneration of critical-size discontinuity bony defects in vivo

Christine Knabe, Michael Stiller, Marian Kampschulte et al. *Front. Bioeng. Biotechnol.* 2023. 11:1221314. doi: 10.3389/fbioe.2023.1221314

Nanofiber Polymers for Coating Titanium-Based Biomedical

*Fibers* Volume 10 Issue 4  
10.3390/fib10040036

Optimised Method for 3D Printing Reliable and Biocompatible Diamond Titanium Microstrut Array for Medical Implants Using Laser Metal Deposition

SSRN

Osteoblast Cell Response on Polycrystalline Diamond-Coated Additively Manufactured Scaffolds

*ACS Appl Bio Mater.* 2021 Oct 18;4(10):7509-7516. doi: 10.1021/acsabm.1c00757.

Re-establishment of macrophage homeostasis by titanium surface modification in type II diabetes promotes osseous healing

*Biomaterials*  
2021 Jan;267:120464. doi: 10.1016/j.biomaterials.2020.120464. Epub 2020 Oct 23.

Hydrophilic titanium surface-induced macrophage modulation promotes pro-osteogenic signalling

*Clin Oral Implants Res.* 2019 Nov;30(11):1085-1096. doi: 10.1111/clr.13522. Epub 2019 Aug 30

Engineering the Interface: Nanodiamond Coating on 3D-Printed Titanium Promotes Mammalian Cell Growth and Inhibits Staphylococcus aureus Colonization

*ACS Appl Mater Interfaces.* 2019 Jul 10;11(27):24588-24597.

A Novel Secretome Biotherapeutic Influences Regeneration in Critical Size Bone Defects

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Use of Polycaprolactone Electrospun Nanofibers as a Coating for Poly(methyl methacrylate) Bone Cement

*Nanomaterials (Basel).* 2017 Jul 10;7(7). pii: E175. doi: 10.3390/nano7070175

## PUBLICATIONS

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Effect of Collagen-Polycaprolactone Nanofibers Matrix Coating on the In Vitro Cytocompatibility and In Vivo Bone Responses of Titanium

Journal of Medical and Biological Engineering, pp 1–14

In Vivo siRNA Delivery Using JC Virus-like Particles Decreases the Expression of RANKL in Rats

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Peen treatment on a titanium implant: effect of roughness, osteoblast cell functions, and bonding with bone cement

Int J Nanomedicine. 2016 Feb; 4:11:585-95. doi: 10.2147/IJNS89376. eCollection 2016

Regulatory effects of fibroblast growth factor-8 and tumor necrosis factor- $\alpha$  on osteoblast marker expression induced by bone morphogenetic protein-2

Peptides. 2015 Sep 26;73:88-94. doi: 10.1016/j.peptides.2015.09.007

Antibody-Mediated Activation of FGFR1 Induces FGF23 Production and Hypophosphatemia

PLoS One. 2013;8(2):e57322. doi: 10.1371/journal.pone.0057322