

Wound healing of human embryonic stem cell-derived retinal pigment epithelial cells is affected by maturation stage
Abu Khamidakh, A. E., Rodriguez-Martinez, A., Kaarniranta, K., Kallioniemi, A., Skottman, H., Hyttinen, J. & Juuti-Uusitalo, K., 31 Jul 2018, In : *BioMedical Engineering Online*. 17, 1, 102.
Research output: Contribution to journal > Article > Scientific > peer-review

Composites of poly(L-lactide-co-caprolactone) and tricalcium phosphate containing antibiotics; Degradation and drug release
Ahola, N., Veiranto, M., Männistö, N. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Effects of chitosan and bioactive glass modifications of knitted and rolled polylactide-based 96/4L/D scaffolds on chondrogenic differentiation of adipose stem cells
Ahtiainen, K., Sippola, L., Nurminen, M., Mannerström, B., Haimi, S., Suuronen, R., Hyttinen, J., Ylikomi, T., Kellomäki, M. & Miettinen, S., 1 Jan 2015, In : *Journal of Tissue Engineering and Regenerative Medicine*. 9, 1, p. 55-65 11 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Non-intersecting leaf insertion algorithm for tree structure models
Åkerblom, M., Raunonen, P., Casella, E., Disney, M. I., Danson, F. M., Gaulton, R., Schofield, L. A. & Kaasalainen, M., 6 Apr 2018, In : *Interface Focus*. 8, 2, 20170045.
Research output: Contribution to journal > Article > Scientific > peer-review

Strontium- and calcium-containing, titanium-stabilised phosphate-based glasses with prolonged degradation for orthopaedic tissue engineering
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Research output: Contribution to journal > Article > Scientific > peer-review

Analysis of biomaterial scaffold fiber thickness for assessing cell attachment
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Compatibilization of natural rubber/nitrile rubber blends by sol-gel nano-silica generated by in situ method
Bansod, N. D., Kappate, B. P., Das, C., Das, A., Basu, D. & Debnath, S. C., 2016, In : *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*. 80, 2, p. 548-559 12 p.
Research output: Contribution to journal > Article > Scientific > peer-review

Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned poss substrates fabricated by nanoimprint lithography
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Research output: Contribution to journal > Article > Scientific > peer-review

The sensitivity of random polymer brush-lamellar polystyrene-b-polymethylmethacrylate block copolymer systems to process conditions
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Research output: Contribution to journal > Article > Scientific > peer-review

Pipeline for effective denoising of digital mammography and digital breast tomosynthesis
Borges, L. R., Bakic, P. R., Foi, A., Maidment, A. D. A. & Vieira, M. A. C., 2017, *Medical Imaging 2017: Physics of Medical Imaging*. SPIE, 1013206. (Progress in biomedical optics and imaging).
Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Lead field theory provides a powerful tool for designing microelectrode array impedance measurements for biological cell detection and observation

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Research output: Contribution to journal › Article › Scientific › peer-review

Honeycomb porous films as permeable scaffold materials for human embryonic stem cell-derived retinal pigment epithelium

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Research output: Contribution to journal › Article › Scientific › peer-review

HA composites of segmented polyurethanes prepared with glutamine or ascorbic acid as chain extenders for bone tissue regeneration

Cetina-Diaz, S. M., Vargas-Coronado, R. F., Cervantes-Uc, J. M., Cauich-Rodríguez, J. V., Ahola, N., Paakinaho, K. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.
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Development of a new illumination procedure for photodynamic therapy of the abdominal cavity

Cuyon, L., Lesage, J. C., Betrouni, N. & Mordon, S., Mar 2012, In : JOURNAL OF BIOMEDICAL OPTICS. 17, 3, 038001.
Research output: Contribution to journal › Article › Scientific › peer-review

Osteoconductive properties of poly(96L/4D-lactide)/beta-tricalcium phosphate in long term animal model

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Research output: Contribution to journal › Article › Scientific › peer-review

Hollow fibers of poly(lactide-co-glycolide) and poly(ϵ -caprolactone) blends for vascular tissue engineering applications

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Research output: Contribution to journal › Article › Scientific › peer-review

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Effect of melt-derived bioactive glass particles on the properties of chitosan scaffolds

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Structure and Dynamics of Thermosensitive pDNA Polyplexes Studied by Time-Resolved Fluorescence Spectroscopy

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Research output: Contribution to journal › Article › Scientific › peer-review

Sol-gel synthesis of quaternary (P2O5)₅₅-(CaO)₂₅-(Na₂O)_(20-x)-(TiO₂)_x bioresorbable glasses for bone tissue engineering applications (x = 0, 5, 10, or 15)

Foroutan, F., Walters, N. J., Owens, G. J., Mordan, N. J., Kim, H. W., de Leeuw, N. H. & Knowles, J. C., 1 Aug 2015, In : Biomedical materials (Bristol, England). 10, 4, p. 45025 1 p.
Research output: Contribution to journal › Article › Scientific › peer-review

On the limit of superhydrophobicity: Defining the minimum amount of TiO₂ nanoparticle coating

Haapanen, J., Aromaa, M., Teisala, H., Juuti, P., Tuominen, M., Sillanpää, M., Stepien, M., Saarinen, J. J., Toivakka, M., Kuusipalo, J. & Mäkelä, J. M., 2019, In : *Materials Research Express*. 6, 3, 035004.

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Research output: Contribution to journal > Article > Scientific > peer-review

Cell adhesion and culture medium dependent changes in the high frequency mechanical vibration induced proliferation, osteogenesis, and intracellular organization of human adipose stem cells

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Wetting hysteresis induced by temperature changes: Supercooled water on hydrophobic surfaces

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Aligned Poly(ϵ -caprolactone) Nanofibers Guide the Orientation and Migration of Human Pluripotent Stem Cell-Derived Neurons, Astrocytes, and Oligodendrocyte Precursor Cells In Vitro

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Measuring optical anisotropy in poly(3,4-ethylene dioxithiophene): poly(styrene sulfonate) films with added graphene

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Miniature CoCr laser welds under cyclic shear: Fatigue evolution and crack growth

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends

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Picosecond laser-induced polymerization of highly porous microscaffolds

Käpylä, E., Aydogan, D. B., Turunen, S., Hyttinen, J. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The production of injectable hydrazone crosslinked gellan gum-hyaluronan-hydrogels with tunable mechanical and physical properties

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Research output: Contribution to journal › Article › Scientific › peer-review

Bioamine-crosslinked gellan gum hydrogel for neural tissue engineering

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A COMPARATIVE IN VITRO STUDY OF CELL GROWTH ON TEXTILE SCAFFOLDS FOR TISSUE ENGINEERING APPLICATIONS

Kroon, M., Talvitie, E., Miettinen, S. & Kellomäki, M., 12 Sep 2018.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

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Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics

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Research output: Contribution to journal › Article › Scientific › peer-review

Osteointegration of PLGA implants with nanostructured or micro-sized β -TCP particles in a minipig model

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Improved properties for packaging materials by nanoscale surface modification and ALD barrier coating

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Roll-to-roll atomic layer deposition for flexible substrates

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Research output: Contribution to journal › Article › Scientific › peer-review

Interstitial photodynamic therapy and glioblastoma: Light fractionation study on a preclinical model: Preliminary results

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Photostable second-harmonic generation from a single KTiOPO₄ nanocrystal for nonlinear microscopy

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Research output: Contribution to journal › Article › Scientific › peer-review

Rational design of a printable, highly conductive silicone-based electrically conductive adhesive for stretchable radio-frequency antennas

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Research output: Contribution to journal › Article › Scientific › peer-review

The influence of high-temperature sulfuric acid solution ageing on the properties of laminated vinyl-ester joints

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Research output: Contribution to journal › Article › Scientific › peer-review

The Role of Temperature and Lipid Charge on Intake/Uptake of Cationic Gold Nanoparticles into Lipid Bilayers

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts

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Research output: Contribution to journal › Article › Scientific › peer-review

In-vitro dissolution characteristics and human adipose stem cell response to novel borophosphate glasses

Mishra, A., Ojansivu, M., Autio, R., Vanhatupa, S., Miettinen, S. & Massera, J., 2019, (Accepted/In press) In : *Journal of Biomedical Materials Research - Part A*.

Research output: Contribution to journal › Article › Scientific › peer-review

Influence of strain rate, temperature and fatigue on the radial compression behaviour of Norway spruce

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Research output: Contribution to journal › Article › Scientific › peer-review

Toward Rigorous Materials Production: New Approach Methodologies Have Extensive Potential to Improve Current Safety Assessment Practices

Nymark, P., Bakker, M., Dekkers, S., Franken, R., Fransman, W., García-Bilbao, A., Greco, D., Gulumian, M., Hadrup, N., Halappanavar, S., Hongisto, V., Hougaard, K. S., Jensen, K. A., Kohonen, P., Koivisto, A. J., Dal Maso, M., Oosterwijk, T., Poikkimäki, M., Rodriguez-Llopis, I., Stierum, R., Sørli, J. B. & Grafström, R., 2020, In : *Small*. 16, 6, 13 p., 1904749.

Research output: Contribution to journal › Review Article › Scientific › peer-review

Bioactive glass ions as strong enhancers of osteogenic differentiation in human adipose stem cells

Ojansivu, M., Vanhatupa, S., Björkvik, L., Häkkänen, H., Kellomäki, M., Autio, R., Ihalainen, J. A., Hupa, L. & Miettinen, S., 15 Jul 2015, In : *Acta Biomaterialia*. 21, p. 190-203 14 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Bioactive glass induced osteogenic differentiation of human adipose stem cells is dependent on cell attachment mechanism and mitogen-activated protein kinases

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Research output: Contribution to journal › Article › Scientific › peer-review

Effect of lactide monomer on the hydrolytic degradation and performance of melt processed poly(lactide-coglycolide) 85L/15G

Paakinaho, K., Heino, H., Väisänen, J., Törmälä, P. & Kellomäki, M., 2011, *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011*.

Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Mathematical modelling of the action potential of human embryonic stem cell derived cardiomyocytes

Paci, M., Sartiani, L., Del Lungo, M., Jaconi, M., Mugelli, A., Cerbai, E. & Severi, S., 28 Aug 2012, In : *BioMedical Engineering Online*. 11, 61.

Research output: Contribution to journal › Article › Scientific › peer-review

Evaluation of scaffold microstructure and comparison of cell seeding methods using micro-computed tomography-based tools

Palmroth, A., Pitkänen, S., Hannula, M., Paakinaho, K., Hyttinen, J., Miettinen, S. & Kellomäki, M., 1 Apr 2020, In : *Journal of the Royal Society. Interface*. 17, 165, 12 p., 20200102.

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Pammo, A., Schouten, M., Virtanen, J. & Tuukkanen, S., 25 Nov 2016, p. 1-1. 1 p.

Research output: Other conference contribution › Paper, poster or abstract › Scientific

Enhancement of adhesion and promotion of osteogenic differentiation of human adipose stem cells by poled electroactive poly(vinylidene fluoride)

Parssinen, J., Hammarén, H., Rahikainen, R., Sencadas, V., Ribeiro, C., Vanhatupa, S., Miettinen, S., Lanceros-Méndez, S. & Hytönen, V. P., 1 Mar 2015, In : *Journal of Biomedical Materials Research. Part A*. 103, 3, p. 919-928 10 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Novel osteoconductive β -tricalcium phosphate/poly(L-lactide-co- ϵ -caprolactone) scaffold for bone regeneration: a study in a rabbit calvarial defect

Pihlman, H., Keränen, P., Paakinaho, K., Linden, J., Hannula, M., Manninen, I. K., Hyttinen, J., Manninen, M. & Laitinen-Vapaavuori, O., 1 Oct 2018, In : *Journal of Materials Science: Materials in Medicine*. 29, 10, 156.

Research output: Contribution to journal › Article › Scientific › peer-review

Characterisation and in vitro and in vivo evaluation of supercritical-CO₂-foamed β -TCP/PLCL composites for bone applications

Pitkänen, S., Paakinaho, K., Pihlman, H., Ahola, N., Hannula, M., Asikainen, S., Manninen, M., Morelius, M., Keränen, P., Hyttinen, J., Kellomäki, M., Laitinen-Vapaavuori, O. & Miettinen, S., 5 Aug 2019, In : *European cells & materials*. 38, p. 35-50 16 p.

Research output: Contribution to journal › Article › Scientific › peer-review

Multi-stable dynamics of the non-adiabatic repressilator

Potapov, I., Zhurov, B. & Volkov, E., 6 Mar 2015, In : *Journal of the Royal Society. Interface*. 12, 104, 20141315.

Research output: Contribution to journal › Article › Scientific › peer-review

Demonstration of increased lipid accumulation potential of stigeoclonium sp., Kütz. BUM11007 under nitrogen starved regime: A new source of lipids for biodiesel production

Praveenkumar, R., Johny, K., MubarakAli, D., Vijayan, D., Thajuddin, N. & Gunasekaran, M., Apr 2012, In : Journal of Biobased Materials and Bioenergy. 6, 2, p. 209-213 5 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers

Primagi, A., Cavallo, G., Forni, A., Gorynsztejn-Leben, M., Kaivola, M., Metrangolo, P., Milani, R., Shishido, A., Pilati, T., Resnati, G. & Terraneo, G., 20 Jun 2012, In : Advanced Functional Materials. 22, 12, p. 2572-2579 8 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Co-culture of human induced pluripotent stem cell-derived retinal pigment epithelial cells and endothelial cells on double collagen-coated honeycomb films

Rebello Calejo, T., Vuorenperä, H., Vuorimaa-Laukkanen, E., Kallio, P., Aalto-Setälä, K., Miettinen, S., Skottman, H., Kellomäki, M. & Juuti-Uusitalo, K., 2020, In : Acta Biomaterialia. 101, p. 327-343 17 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids

Reyes, G., Borghei, M., King, A. W. T., Lahti, J. & Rojas, O. J., 14 Jan 2019, In : Biomacromolecules. 20, 1, p. 502-514

Research output: Contribution to journal > Article > Scientific > peer-review

Dynamic piezoelectric stimulation enhances osteogenic differentiation of human adipose stem cells

Ribeiro, C., Pärssinen, J., Sencadas, V., Correia, V., Miettinen, S., Hytönen, V. P. & Lanceros-Méndez, S., 1 Jun 2015, In : Journal of Biomedical Materials Research. Part A. 103, 6, p. 2172-2175 4 p.

Research output: Contribution to journal > Article > Scientific > peer-review

Gas-foamed poly(lactide-co-glycolide) and poly(lactide-co-glycolide) with bioactive glass fibres demonstrate insufficient bone repair in lapine osteochondral defects

Salonius, E., Muhonen, V., Lehto, K., Järvinen, E., Pyhältö, T., Hannula, M., Aula, A. S., Uppstu, P., Haaparanta, A. M., Rosling, A., Kellomäki, M. & Kiviranta, I., 2019, In : Journal of Tissue Engineering and Regenerative Medicine. 13, 3, p. 406-415 10 p.

Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Direct laser writing of microstructures for the growth guidance of human pluripotent stem cell derived neuronal cells

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

Nano-structured optical fibers made of glass-ceramics, and phase separated and metallic particle-containing glasses

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Research output: Contribution to journal › Review Article › Scientific › peer-review

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Research output: Contribution to journal › Article › Scientific › peer-review

Noise measurements from reconstructed digital breast tomosynthesis

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Research output: Chapter in Book/Report/Conference proceeding › Conference contribution › Scientific › peer-review

The effect of equiaxial stretching on the osteogenic differentiation and mechanical properties of human adipose stem cells
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Research output: Contribution to journal > Article > Scientific > peer-review

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Human Adipose Stem Cells Differentiated on Braided Polylactide Scaffolds is a Potential Approach for Tendon Tissue Engineering

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Contribution to journal > Article > Scientific > peer-review

3D Scaffolds of Polycaprolactone/Copper-Doped Bioactive Glass: Architecture Engineering with Additive Manufacturing and Cellular Assessments in a Coculture of Bone Marrow Stem Cells and Endothelial Cells

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Research output: Contribution to journal > Article > Scientific > peer-review

Effects of bioactive glass S53P4 or beta-tricalcium phosphate and bone morphogenetic protein-2 and bone morphogenetic protein-7 on osteogenic differentiation of human adipose stem cells

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Research output: Contribution to journal > Article > Scientific > peer-review

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Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > Scientific > peer-review

Three-dimensional growth matrix for human embryonic stem cell-derived neuronal cells

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Research output: Contribution to journal > Article > Scientific > peer-review

A 3D Alzheimer's disease culture model and the induction of P21-activated kinase mediated sensing in iPSC derived neurons

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Research output: Contribution to journal > Article > Scientific > peer-review

Polypyrrole coating on poly-(lactide/glycolide)- β -tricalcium phosphate screws enhances new bone formation in rabbits

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