

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.

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

Halonen, H. T., Ihalainen, T. O., Hyväri, L., Miettinen, S. & Hyttinen, J. A. K., 1 Jan 2020, In : Journal of the Mechanical Behavior of Biomedical Materials. 101, 103419.

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

Backscattering-based wireless communication and power transfer to small biomedical implants

Ukkonen, L., Sydänheimo, L., Ma, S. & Björninen, T., 2020, *Microfluidics, BioMEMS, and Medical Microsystems XVIII*. Gray, B. L. & Becker, H. (eds.). SPIE, 112350A. (Progress in Biomedical Optics and Imaging - Proceedings of SPIE; vol. 11235).

Research output: Chapter in Book/Report/Conference proceeding > Conference contribution > 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

Rebelo 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

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

Transcription closed and open complex formation coordinate expression of genes with a shared promoter region

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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

Kanerva, M., Besharat, Z., Pärnänen, T., Jokinen, J., Honkanen, M., Sarlin, E., Göthelid, M. & Schlenzka, D., 1 Nov 2019, In : Journal of the Mechanical Behavior of Biomedical Materials. 99, p. 93-103 11 p.

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

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

Bioactive glass ions for in vitro osteogenesis and microvascularization in gellan gum-collagen hydrogels

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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

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

Wang, X., Molino, B. Z., Pitkänen, S., Ojansivu, M., Xu, C., Hannula, M., Hyttinen, J., Miettinen, S., Hupa, L. & Wallace, G., 18 Jul 2019, In : ACS Biomaterials Science and Engineering. 5, 9, p. 4496-4510

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

An architectural understanding of natural sway frequencies in trees

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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

Noise measurements from reconstructed digital breast tomosynthesis

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

Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids

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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

Human Neural Tissues from Neural Stem Cells Using Conductive Biogel and Printed Polymer Microelectrode Arrays for 3D Electrical Stimulation

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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 > Review Article > Scientific > peer-review

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

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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

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

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

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

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

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Wound healing of human embryonic stem cell-derived retinal pigment epithelial cells is affected by maturation stage

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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

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

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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

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

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

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

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

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

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

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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 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

Effect of incorporation of CdS NPs on performance of PTB7: PCBM organic solar 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

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

Vuornos, K., Björninen, M., Talvitie, E., Paakinaho, K., Kellomäki, M., Huhtala, H., Miettinen, S., Seppänen-Kajjansinkko, R. & Haimi, S., 1 Mar 2016, In : *Tissue Engineering Part A*. 22, 5-6, p. 513-523 11 p.

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

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

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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

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

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

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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

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)

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Research output: Contribution to journal > 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

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

Dynamic piezoelectric stimulation enhances osteogenic differentiation of human adipose stem cells

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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

Biomimetic collagen I and IV double layer Langmuir-Schaefer films as microenvironment for human pluripotent stem cell derived retinal pigment epithelial cells

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

Comparison of three light doses in the photodynamic treatment of actinic keratosis using mathematical modeling

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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

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

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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

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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

Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels

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

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