Wang, X, Molino, BZ, Pitkänen, S, Ojansivu, M, Xu, C, Hannula, M, Hyttinen, J, Miettinen, S, Hupa, L & Wallace, G 2019, ' 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', *ACS Biomaterials Science and Engineering*, vol. 5, no. 9, pp. 4496-4510. https://doi.org/10.1021/acsbiomaterials.9b00105

Zhang, D, Pekkanen-Mattila, M, Shahsavani, M, Falk, A, Teixeira, AI & Herland, A 2014, 'A 3D Alzheimer's disease culture model and the induction of P21-activated kinase mediated sensing in iPSC derived neurons', *Biomaterials*, vol. 35, no. 5, pp. 1420-1428. https://doi.org/10.1016/j.biomaterials.2013.11.028

Hyysalo, A, Ristola, M, Joki, T, Honkanen, M, Vippola, M & Narkilahti, S 2017, 'Aligned Poly(ε-caprolactone) Nanofibers Guide the Orientation and Migration of Human Pluripotent Stem Cell-Derived Neurons, Astrocytes, and Oligodendrocyte Precursor Cells In Vitro', *MACROMOLECULAR BIOSCIENCE*, vol. 17, no. 7, 1600517. https://doi.org/10.1002/mabi.201600517

Jackson, T, Shenkin, A, Moore, J, Bunce, A, van Emmerik, T, Kane, B, Burcham, D, James, K, Selker, J, Calders, K, Origo, N, Disney, M, Burt, A, Wilkes, P, Raumonen, P, Gonzalez de Tanago Menaca, J, Lau, A, Herold, M, Goodman, RC, Fourcaud, T & Malhi, Y 2019, 'An architectural understanding of natural sway frequencies in trees', *Journal of the Royal Society. Interface*, vol. 16, no. 155. https://doi.org/10.1098/rsif.2019.0116

Fedele, C, De Gregorio, M, Netti, PA, Cavalli, S & Attanasio, C 2017, 'Azopolymer photopatterning for directional control of angiogenesis', *Acta Biomaterialia*, vol. 63, pp. 317-325. https://doi.org/10.1016/j.actbio.2017.09.022

Ojansivu, M, Wang, X, Hyväri, L, Kellomäki, M, Hupa, L, Vanhatupa, S & Miettinen, S 2018, 'Bioactive glass induced osteogenic differentiation of human adipose stem cells is dependent on cell attachment mechanism and mitogen-activated protein kinases', *European Cells and Materials*, vol. 35, pp. 53-71. https://doi.org/10.22203/eCM.v035a05

Ojansivu, M, Vanhatupa, S, Björkvik, L, Häkkänen, H, Kellomäki, M, Autio, R, Ihalainen, JA, Hupa, L & Miettinen, S 2015, ' Bioactive glass ions as strong enhancers of osteogenic differentiation in human adipose stem cells', *Acta Biomaterialia*, vol. 21, pp. 190-203. https://doi.org/10.1016/j.actbio.2015.04.017

Vuornos, K, Huhtala, H, Kääriäinen, M, Kuismanen, K, Hupa, L, Kellomäki, M & Miettinen, S 2019, 'Bioactive glass ions for in vitro osteogenesis and microvascularization in gellan gum-collagen hydrogels', *Journal of Biomedical Materials Research - Part B Applied Biomaterials*. https://doi.org/10.1002/jbm.b.34482

Koivisto, JT, Joki, T, Parraga, JE, Paakkönen, R, Yla-Outinen, L, Salonen, L, Jönkkäri, I, Peltola, M, Ihalainen, TO, Narkilahti, S & Kellomäki, M 2017, 'Bioamine-crosslinked gellan gum hydrogel for neural tissue engineering', *Biomedical Materials*, vol. 12, no. 2, 025014. https://doi.org/10.1088/1748-605X/aa62b0

Sorkio, AE, Vuorimaa-Laukkanen, EP, Hakola, HM, Liang, H, Ujula, TA, Valle-Delgado, JJ, Österberg, M, Yliperttula, ML & Skottman, H 2015, 'Biomimetic collagen I and IV double layer Langmuir-Schaefer films asmicroenvironment for human pluripotent stem cell derived retinal pigment epithelial cells', *Biomaterials*, vol. 51, pp. 257-269. https://doi.org/10.1016/j.biomaterials.2015.02.005

Halonen, HT, Ihalainen, TO, Hyväri, L, Miettinen, S & Hyttinen, JAK 2020, 'Cell adhesion and culture medium dependent changes in the high frequency mechanical vibration induced proliferation, osteogenesis, and intracellular organization of human adipose stem cells', *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 101, 103419. https://doi.org/10.1016/j.jmbbm.2019.103419

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 2019, 'Characterisation and in vitro and in vivo evaluation of supercritical-CO2-foamed β-TCP/PLCL composites for bone applications', *European cells & materials*, vol. 38, pp. 35-50. https://doi.org/10.22203/eCM.v038a04

Rebelo Calejo, T, Vuorenpää, H, Vuorimaa-Laukkanen, E, Kallio, P, Aalto-Setälä, K, Miettinen, S, Skottman, H, Kellomäki, M & Juuti-Uusitalo, K 2020, 'Co-culture of human induced pluripotent stem cell-derived retinal pigment epithelial cells and endothelial cells on double collagen-coated honeycomb films', *Acta Biomaterialia*, vol. 101, pp. 327-343.

https://doi.org/10.1016/j.actbio.2019.11.002

Vignion-Dewalle, AS, Betrouni, N, Tylcz, JB, Vermandel, M, Mortier, L & Mordon, S 2015, 'Comparison of three light doses in the photodynamic treatment of actinic keratosis using mathematical modeling', *JOURNAL OF BIOMEDICAL OPTICS*, vol. 20, no. 5, 058001. https://doi.org/10.1117/1.JBO.20.5.058001

Bansod, ND, Kapgate, BP, Das, C, Das, A, Basu, D & Debnath, SC 2016, 'Compatibilization of natural rubber/nitrile rubber blends by sol–gel nano-silica generated by in situ method', *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*, vol. 80, no. 2, pp. 548–559. https://doi.org/10.1007/s10971-016-4114-0

Praveenkumar, R, Johncy, K, MubarakAli, D, Vijayan, D, Thajuddin, N & Gunasekaran, M 2012, 'Demonstration of increased lipid accumulation potential of stigeoclonium sp., Kütz. BUM11007 under nitrogen starved regime: A new source of lipids for biodiesel production', *Journal of Biobased Materials and Bioenergy*, vol. 6, no. 2, pp. 209-213. https://doi.org/10.1166/jbmb.2012.1200

Cuyon, L, Lesage, JC, Betrouni, N & Mordon, S 2012, 'Development of a new illumination procedure for photodynamic therapy of the abdominal cavity', *JOURNAL OF BIOMEDICAL OPTICS*, vol. 17, no. 3, 038001. https://doi.org/10.1117/1.JBO.17.3.038001

Turunen, S, Käpylä, E, Lähteenmäki, M, Ylä-Outinen, L, Narkilahti, S & Kellomäki, M 2014, 'Direct laser writing of microstructures for the growth guidance of human pluripotent stem cell derived neuronal cells', *Optics and Lasers in Engineering*, vol. 55, pp. 197-204. https://doi.org/10.1016/j.optlaseng.2013.11.003

Ribeiro, C, Pärssinen, J, Sencadas, V, Correia, V, Miettinen, S, Hytönen, VP & Lanceros-Méndez, S 2015, 'Dynamic piezoelectric stimulation enhances osteogenic differentiation of human adipose stem cells', *Journal of Biomedical Materials Research. Part A*, vol. 103, no. 6, pp. 2172-2175. https://doi.org/10.1002/jbm.a.35368

Sharma, R, Bhalerao, S & Gupta, D 2016, 'Effect of incorporation of CdS NPs on performance of PTB7: PCBM organic solar cells', *Organic Electronics: physics, materials, applications*, vol. 33, pp. 274-280. https://doi.org/10.1016/j.orgel.2016.03.030

Faqhiri, H, Hannula, M, Kellomäki, M, Calejo, MT & Massera, J 2019, 'Effect of melt-derived bioactive glass particles on the properties of chitosan scaffolds', *JOURNAL OF FUNCTIONAL BIOMATERIALS*, vol. 10, no. 3, 38. https://doi.org/10.3390/jfb10030038

Kapgate, BP, Das, C, Das, A, Basu, D, Reuter, U & Heinrich, G 2012, 'Effect of sol-gel derived in situ silica on the morphology and mechanical behavior of natural rubber and acrylonitrile butadiene rubber blends', *JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY*, vol. 63, no. 3, pp. 501-509. https://doi.org/10.1007/s10971-012-2812-9

Waselau, M, Patrikoski, M, Juntunen, M, Kujala, K, Kääriäinen, M, Kuokkanen, H, Sándor, GK, Vapaavuori, O, Suuronen, R, Mannerström, B, von Rechenberg, B & Miettinen, S 2012, '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', *Journal of Tissue Engineering*, vol. 3, no. 1, pp. 1-14. https://doi.org/10.1177/2041731412467789

Ahtiainen, K, Sippola, L, Nurminen, M, Mannerström, B, Haimi, S, Suuronen, R, Hyttinen, J, Ylikomi, T, Kellomäki, M & Miettinen, S 2015, 'Effects of chitosan and bioactive glass modifications of knitted and rolled polylactide-based 96/4L/D scaffolds on chondrogenic differentiation of adipose stem cells', *Journal of Tissue Engineering and Regenerative Medicine* , vol. 9, no. 1, pp. 55-65. https://doi.org/10.1002/term.1614

Parssinen, J, Hammarén, H, Rahikainen, R, Sencadas, V, Ribeiro, C, Vanhatupa, S, Miettinen, S, Lanceros-Méndez, S & Hytönen, VP 2015, 'Enhancement of adhesion and promotion of osteogenic differentiation of human adipose stem cells by poled electroactive poly(vinylidene fluoride)', *Journal of Biomedical Materials Research. Part A*, vol. 103, no. 3, pp. 919-928. https://doi.org/10.1002/jbm.a.35234

Palmroth, A, Pitkänen, S, Hannula, M, Paakinaho, K, Hyttinen, J, Miettinen, S & Kellomäki, M 2020, 'Evaluation of scaffold microstructure and comparison of cell seeding methods using micro-computed tomography-based tools', *Journal of the Royal Society. Interface*, vol. 17, no. 165, 20200102. https://doi.org/10.1098/rsif.2020.0102

Kulju, S, Riegger, L, Koltay, P, Mattila, K & Hyväluoma, J 2018, 'Fluid flow simulations meet high-speed video: Computer vision comparison of droplet dynamics', *Journal of Colloid and Interface Science*, vol. 522, pp. 48-56. https://doi.org/10.1016/j.jcis.2018.03.053

Marqa, MF, Colin, P, Nevoux, P, Mordon, SR & Betrouni, N 2011, 'Focal Laser Ablation of Prostate Cancer: Numerical Simulation of Temperature and Damage Distribution', *BioMedical Engineering Online*, vol. 10, 45. https://doi.org/10.1186/1475-925X-10-45

Salonius, E, Muhonen, V, Lehto, K, Järvinen, E, Pyhältö, T, Hannula, M, Aula, AS, Uppstu, P, Haaparanta, AM, Rosling, A , Kellomäki, M & Kiviranta, I 2019, 'Gas-foamed poly(lactide-co-glycolide) and poly(lactide-co-glycolide) with bioactive glass fibres demonstrate insufficient bone repair in lapine osteochondral defects', *Journal of Tissue Engineering and Regenerative Medicine*, vol. 13, no. 3, pp. 406-415. https://doi.org/10.1002/term.2801

Priimagi, A, Cavallo, G, Forni, A, Gorynsztejn-Leben, M, Kaivola, M, Metrangolo, P, Milani, R, Shishido, A, Pilati, T, Resnati, G & Terraneo, G 2012, 'Halogen bonding versus hydrogen bonding in driving self-assembly and performance of light-responsive supramolecular polymers', *Advanced Functional Materials*, vol. 22, no. 12, pp. 2572-2579. https://doi.org/10.1002/adfm.201200135

Diban, N, Haimi, S, Bolhuis-Versteeg, L, Teixeira, S, Miettinen, S, Poot, A, Grijpma, D & Stamatialis, D 2013, 'Hollow fibers of poly(lactide-co-glycolide) and poly(ε-caprolactone) blends for vascular tissue engineering applications', *Acta Biomaterialia*, vol. 9, no. 5, pp. 6450-6458. https://doi.org/10.1016/j.actbio.2013.01.005

Calejo, MT, Ilmarinen, T, Jongprasitkul, H, Skottman, H & Kellomäki, M 2016, 'Honeycomb porous films as permeable scaffold materials for human embryonic stem cell-derived retinal pigment epithelium', *Journal of Biomedical Materials Research. Part A*, vol. 104, no. 7, pp. 1646-1656. https://doi.org/10.1002/jbm.a.35690

Vuornos, K, Björninen, M, Talvitie, E, Paakinaho, K, Kellomäki, M, Huhtala, H, Miettinen, S, Seppänen-Kaijansinkko, R & Haimi, S 2016, 'Human Adipose Stem Cells Differentiated on Braided Polylactide Scaffolds is a Potential Approach for Tendon Tissue Engineering', *Tissue Engineering Part A*, vol. 22, no. 5-6, pp. 513-523. https://doi.org/10.1089/ten.tea.2015.0276

Sarkanen, JR, Kaila, V, Mannerström, B, Räty, S, Kuokkanen, H, Miettinen, S & Ylikomi, T 2012, 'Human adipose tissue extract induces angiogenesis and adipogenesis in vitro', *Tissue Engineering Part A*, vol. 18, no. 1-2, pp. 17-25. https://doi.org/10.1089/ten.tea.2010.0712

Tomaskovic-Crook, E, Zhang, P, Ahtiainen, A, Kaisvuo, H, Lee, CY, Beirne, S, Aqrawe, Z, Svirskis, D, Hyttinen, J, Wallace, GG, Travas-Sejdic, J & Crook, JM 2019, 'Human Neural Tissues from Neural Stem Cells Using Conductive Biogel and Printed Polymer Microelectrode Arrays for 3D Electrical Stimulation', *ADVANCED HEALTHCARE MATERIALS* . https://doi.org/10.1002/adhm.201900425

Zorzi, GK, Párraga, JE, Seijo, B & Sánchez, A 2011, 'Hybrid nanoparticle design based on cationized gelatin and the polyanions dextran sulfate and chondroitin sulfate for ocular gene therapy', *MACROMOLECULAR BIOSCIENCE*, vol. 11, no. 7, pp. 905-913. https://doi.org/10.1002/mabi.201100005

Will, OM, Purcz, N, Chalaris, A, Heneweer, C, Boretius, S, Purcz, L, Nikkola, L, Ashammakhi, N, Kalthoff, H, Glüer, CC, Wiltfang, J, Açil, Y & Tiwari, S 2016, 'Increased survival rate by local release of diclofenac in a murine model of recurrent oral carcinoma', *International Journal of Nanomedicine*, vol. 11, pp. 5311-5321. https://doi.org/10.2147/IJN.S109199

Moilanen, C, Björkqvist, T, Ovaska, M, Koivisto, J, Miksic, A, Engberg, BA, Salminen, LI, Saarenrinne, P & Alava, M 2017, 'Influence of strain rate, temperature and fatigue on the radial compression behaviour of Norway spruce', *Holzforschung*, vol. 71, no. 6, pp. 505-514. https://doi.org/10.1515/hf-2016-0144

Mishra, A, Ojansivu, M, Autio, R, Vanhatupa, S, Miettinen, S & Massera, J 2019, 'In-vitro dissolution characteristics and human adipose stem cell response to novel borophosphate glasses', *Journal of Biomedical Materials Research - Part A*. https://doi.org/10.1002/jbm.a.36722

Böttrich, M, Tanskanen, JMA & Hyttinen, JAK 2017, 'Lead field theory provides a powerful tool for designing microelectrode array impedance measurements for biological cell detection and observation', *BioMedical Engineering Online*, vol. 16, no. 1, 85. https://doi.org/10.1186/s12938-017-0372-5

Paci, M, Sartiani, L, Del Lungo, M, Jaconi, M, Mugelli, A, Cerbai, E & Severi, S 2012, 'Mathematical modelling of the action potential of human embryonic stem cell derived cardiomyocytes', *BioMedical Engineering Online*, vol. 11, 61. https://doi.org/10.1186/1475-925X-11-61

Isoniemi, T, Tuukkanen, S, Cameron, DC, Simonen, J & Toppari, JJ 2015, 'Measuring optical anisotropy in poly(3,4-ethylene dioxythiophene): poly(styrene sulfonate) films with added graphene', *Organic Electronics*, vol. 25, pp. 317-323. https://doi.org/10.1016/j.orgel.2015.06.037, https://doi.org/10.1016/j.orgel.2015.06.037

Kanerva, M, Besharat, Z, Pärnänen, T, Jokinen, J, Honkanen, M, Sarlin, E, Göthelid, M & Schlenzka, D 2019, 'Miniature CoCr laser welds under cyclic shear: Fatigue evolution and crack growth', *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 99, pp. 93-103. https://doi.org/10.1016/j.jmbbm.2019.07.004

Potapov, I, Zhurov, B & Volkov, E 2015, 'Multi-stable dynamics of the non-adiabatic repressilator', *Journal of the Royal Society. Interface*, vol. 12, no. 104, 20141315. https://doi.org/10.1098/rsif.2014.1315

Åkerblom, M, Raumonen, P, Casella, E, Disney, MI, Danson, FM, Gaulton, R, Schofield, LA & Kaasalainen, M 2018, 'Non-intersecting leaf insertion algorithm for tree structure models', *Interface Focus*, vol. 8, no. 2, 20170045. https://doi.org/10.1098/rsfs.2017.0045

Pihlman, H, Keränen, P, Paakinaho, K, Linden, J, Hannula, M, Manninen, IK, Hyttinen, J, Manninen, M & Laitinen-Vapaavuori, O 2018, 'Novel osteoconductive β-tricalcium phosphate/poly(L-lactide-co-e-caprolactone) scaffold for bone regeneration: a study in a rabbit calvarial defect', *Journal of Materials Science: Materials in Medicine*, vol. 29, no. 10, 156. https://doi.org/10.1007/s10856-018-6159-9

Haapanen, J, Aromaa, M, Teisala, H, Juuti, P, Tuominen, M, Sillanpää, M, Stepien, M, Saarinen, JJ, Toivakka, M, Kuusipalo, J & Mäkelä, JM 2019, 'On the limit of superhydrophobicity: Defining the minimum amount of TiO_2 nanoparticle coating', *Materials Research Express*, vol. 6, no. 3, 035004. https://doi.org/10.1088/2053-1591/aaf2ee

Daculsi, G, Goyenvalle, E, Cognet, R, Aguado, E & Suokas, EO 2011, 'Osteoconductive properties of poly(96L/4D-lactide)/beta-tricalcium phosphate in long term animal model', *Biomaterials*, vol. 32, no. 12, pp. 3166-3177. https://doi.org/10.1016/j.biomaterials.2011.01.033

Tirkkonen, L, Haimi, S, Huttunen, S, Wolff, J, Pirhonen, E, Sándor, GK & Miettinen, S 2012, 'Osteogenic medium is superior to growth factors in differentiation of human adipose stem cells towards boneforming cells in 3D culture', *European Cells and Materials*, vol. 25, pp. 144-158.

Kulkova, J, Moritz, N, Suokas, EO, Strandberg, N, Leino, KA, Laitio, TT & Aro, HT 2014, 'Osteointegration of PLGA implants with nanostructured or microsized β-TCP particles in a minipig model', *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 40, pp. 190-200. https://doi.org/10.1016/j.jmbbm.2014.08.028

Le Xuan, L, Zhou, C, Slablab, A, Chauvat, D, Tard, C, Perruchas, S, Gacoin, T, Villeval, P & Roch, J-F 2008, 'Photostable second-harmonic generation from a single KTiOPO4 nanocrystal for nonlinear microscopy', *Small*, vol. 4, no. 9, pp. 1332-1336. https://doi.org/10.1002/smll.200701093

Zhao, MD, Björninen, M, Cao, L, Wang, HR, Pelto, J, Li, XQ, Hyttinen, J, Jiang, YQ, Kellomäki, M, Miettinen, S, Sándor, GK, Seppänen, R, Haimi, S & Dong, J 2015, 'Polypyrrole coating on poly-(lactide/glycolide)-β-tricalcium phosphate screws enhances new bone formation in rabbits', *Biomedical Materials*, vol. 10, no. 6, 065016. https://doi.org/10.1088/1748-6041/10/6/065016

Kuuliala, L, Pippuri, T, Hultman, J, Auvinen, S-M, Kolppo, K, Nieminen, T, Karp, M, Björkroth, J, Kuusipalo, J & Jääskeläinen, E 2015, 'Preparation and antimicrobial characterization of silver-containing packaging materials for meat', *Food Packaging and Shelf Life*, vol. 6, 67, pp. 53-60. https://doi.org/10.1016/j.fpsl.2015.09.004

Li, Z, Le, T, Wu, Z, Yao, Y, Li, L, Tentzeris, M, Moon, KS & Wong, CP 2015, 'Rational design of a printable, highly conductive silicone-based electrically conductive adhesive for stretchable radio-frequency antennas', *Advanced Functional Materials*, vol. 25, no. 3, pp. 464-470. https://doi.org/10.1002/adfm.201403275

Lenk, K, Priwitzer, B, Ylä-Outinen, L, Tietz, LHB, Narkilahti, S & Hyttinen, JAK 2016, 'Simulation of developing human neuronal cell networks', *BioMedical Engineering Online*, vol. 15, no. 1, 105. https://doi.org/10.1186/s12938-016-0226-6

Borah, D, Rasappa, S, Salaun, M, Zellsman, M, Lorret, O, Liontos, G, Ntetsikas, K, Avgeropoulos, A & Morris, MA 2015, ' Soft graphoepitaxy for large area directed self-assembly of polystyrene-block-poly(dimethylsiloxane) block copolymer on nanopatterned poss substrates fabricated by nanoimprint lithography', *Advanced Functional Materials*, vol. 25, no. 22, pp. 3425-3432. https://doi.org/10.1002/adfm.201500100

Foroutan, F, Walters, NJ, Owens, GJ, Mordan, NJ, Kim, HW, de Leeuw, NH & Knowles, JC 2015, '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)', *Biomedical materials (Bristol, England)*, vol. 10, no. 4, pp. 45025. https://doi.org/10.1088/1748-6041/10/4/045025

Reyes, G, Borghei, M, King, AWT, Lahti, J & Rojas, OJ 2019, 'Solvent Welding and Imprinting Cellulose Nanofiber Films Using Ionic Liquids', *Biomacromolecules*, vol. 20, no. 1, pp. 502-514. https://doi.org/10.1021/acs.biomac.8b01554

Stumpel, JE, Gil, ER, Spoelstra, AB, Bastiaansen, CWM, Broer, DJ & Schenning, APHJ 2015, 'Stimuli-Responsive Materials Based on Interpenetrating Polymer Liquid Crystal Hydrogels', *Advanced Functional Materials*, vol. 25, no. 22, pp. 3314–3320. https://doi.org/10.1002/adfm.201500745

Al Qaysi, M, Walters, NJ, Foroutan, F, Owens, GJ, Kim, HW, Shah, R & Knowles, JC 2015, 'Strontium- and calcium-containing, titanium-stabilised phosphate-based glasses with prolonged degradation for orthopaedic tissue engineering', *Journal of Biomaterials Applications*, vol. 30, no. 3, pp. 300-310. https://doi.org/10.1177/0885328215588898

Sorkio, A, Hongisto, H, Kaarniranta, K, Uusitalo, H, Juuti-Uusitalo, K & Skottman, H 2014, 'Structure and barrier properties of human embryonic stem cell-derived retinal pigment epithelial cells are affected by extracellular matrix protein coating', *Tissue Engineering Part A*, vol. 20, no. 3-4, pp. 622-634. https://doi.org/10.1089/ten.tea.2013.0049

Fliervoet, LAL, Lisitsyna, ES, Durandin, NA, Kotsis, I, Maas-Bakker, RFM, Yliperttula, M, Hennink, WE, Vuorimaa-Laukkanen, E & Vermonden, T 2019, 'Structure and Dynamics of Thermosensitive pDNA Polyplexes Studied by Time-Resolved Fluorescence Spectroscopy', *Biomacromolecules*. https://doi.org/10.1021/acs.biomac.9b00896

Sorkio, A, Porter, PJ, Juuti-Uusitalo, K, Meenan, BJ, Skottman, H & Burke, GA 2015, 'Surface Modified Biodegradable Electrospun Membranes as a Carrier for Human Embryonic Stem Cell-Derived Retinal Pigment Epithelial Cells', *Tissue Engineering Part A*, vol. 21, no. 17-18, pp. 2301-2314. https://doi.org/10.1089/ten.tea.2014.0640

Kanninen, L, Jokinen, N, Lahtonen, K, Jussila, P, Ali-Löytty, H, Hirsimäki, M, Leppiniemi, J, Hytönen, V, Kulomaa, M, Ahola, N, Paakinaho, K, Kellomäki, M & Valden, M 2010, 'Surface science analysis and surface modification methods for biomaterials research', *European Cells and Materials*, vol. 20, no. SUPPL. 3, pp. 133.

Virjula, S, Zhao, F, Leivo, J, Vanhatupa, S, Kreutzer, J, Vaughan, TJ, Honkala, AM, Viehrig, M, Mullen, CA, Kallio, P, McNamara, LM & Miettinen, S 2017, 'The effect of equiaxial stretching on the osteogenic differentiation and mechanical properties of human adipose stem cells', *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 72, pp. 38-48.

https://doi.org/10.1016/j.jmbbm.2017.04.016

Lindgren, M, Wallin, M, Kakkonen, M, Saarela, O & Vuorinen, J 2016, 'The influence of high-temperature sulfuric acid solution ageing on the properties of laminated vinyl-ester joints', *International Journal of Adhesion and Adhesives*, vol. 68, pp. 298-304. https://doi.org/10.1016/j.ijadhadh.2016.04.011

Massera, J, Kokkari, A, Närhi, T & Hupa, L 2015, 'The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts', *Journal of Materials Science: Materials in Medicine*, vol. 26, no. 6, 196. https://doi.org/10.1007/s10856-015-5528-x

Karvinen, J, Koivisto, JT, Jönkkäri, I & Kellomäki, M 2017, 'The production of injectable hydrazone crosslinked gellan gum-hyaluronan-hydrogels with tunable mechanical and physical properties', *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 71, pp. 383-391. https://doi.org/10.1016/j.jmbbm.2017.04.006

Lolicato, F, Joly, L, Martinez-Seara, H, Fragneto, G, Scoppola, E, Baldelli Bombelli, F, Vattulainen, I, Akola, J & Maccarini, M 2019, 'The Role of Temperature and Lipid Charge on Intake/Uptake of Cationic Gold Nanoparticles into Lipid Bilayers', *Small*, vol. 15, no. 23, 1805046. https://doi.org/10.1002/smll.201805046

Borah, D, Rasappa, S, Senthamaraikannan, R, Shaw, MT, Holmes, JD & Morris, MA 2013, 'The sensitivity of random polymer brush-lamellar polystyrene-b-polymethylmethacrylate block copolymer systems to process conditions', *Journal of Colloid and Interface Science*, vol. 393, no. 1, pp. 192-202. https://doi.org/10.1016/j.jcis.2012.10.070

Ylä-Outinen, L, Joki, T, Varjola, M, Skottman, H & Narkilahti, S 2014, 'Three-dimensional growth matrix for human embryonic stem cell-derived neuronal cells', *Journal of Tissue Engineering and Regenerative Medicine*, vol. 8, no. 3, pp. 186-194. https://doi.org/10.1002/term.1512

Häkkinen, A, Oliveira, SMD, Neeli-Venkata, R & Ribeiro, AS 2019, 'Transcription closed and open complex formation coordinate expression of genes with a shared promoter region', *Journal of the Royal Society Interface*, vol. 16, no. 161, 20190507. https://doi.org/10.1098/rsif.2019.0507

Kaasalainen, S, Åkerblom, M, Nevalainen, O, Hakala, T & Kaasalainen, M 2018, 'Uncertainty in multispectral lidar signals caused by incidence angle effects', *Interface Focus*, vol. 8, no. 2, 20170033. https://doi.org/10.1098/rsfs.2017.0033

Hiltunen, M, Pelto, J, Ellä, V & Kellomäki, M 2016, 'Uniform and electrically conductive biopolymer-doped polypyrrole coating for fibrous PLA', *Journal of Biomedical Materials Research. Part B: Applied Biomaterials*, vol. 104, no. 8, pp. 1721–1729. https://doi.org/10.1002/jbm.b.33514

Disney, MI, Boni Vicari, M, Burt, A, Calders, K, Lewis, SL, Raumonen, P & Wilkes, P 2018, 'Weighing trees with lasers: Advances, challenges and opportunities', *Interface Focus*, vol. 8, no. 2, 20170048. https://doi.org/10.1098/rsfs.2017.0048

Heydari, G, Sedighi Moghaddam, M, Tuominen, M, Fielden, M, Haapanen, J, Mäkelä, JM & Claesson, PM 2016, 'Wetting hysteresis induced by temperature changes: Supercooled water on hydrophobic surfaces', *Journal of Colloid and Interface Science*, vol. 468, pp. 21-33. https://doi.org/10.1016/j.jcis.2016.01.040

Abu Khamidakh, AE, Rodriguez-Martinez, A, Kaarniranta, K, Kallioniemi, A, Skottman, H, Hyttinen, J & Juuti-Uusitalo, K 2018, 'Wound healing of human embryonic stem cell-derived retinal pigment epithelial cells is affected by maturation stage ', *BioMedical Engineering Online*, vol. 17, no. 1, 102. https://doi.org/10.1186/s12938-018-0535-z

Aydogan, DB, Hannula, M, Rajala, A, Pälli, A, Haimi, S, Kellomäki, M & Hyttinen, J 2011, Analysis of biomaterial scaffold fiber thickness for assessing cell attachment. in *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011.* 24th European Conference on Biomaterials, EBS 2011, Dublin, Ireland, 4/09/11.

Ukkonen, L, Sydänheimo, L, Ma, S & Björninen, T 2020, Backscattering-based wireless communication and power transfer to small biomedical implants. in BL Gray & H Becker (eds), *Microfluidics, BioMEMS, and Medical Microsystems XVIII.*, 112350A, Progress in Biomedical Optics and Imaging - Proceedings of SPIE, vol. 11235, SPIE, Microfluidics, BioMEMS, and Medical Microsystems, San Francisco, United States, 1/02/20. https://doi.org/10.1117/12.2552183

Ahola, N, Veiranto, M, Männistö, N & Kellomäki, M 2011, Composites of poly(L-lactide-co-caprolactone) and tricalcium phosphate containing antibiotics; Degradation and drug release. in *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011.* 24th European Conference on Biomaterials, EBS 2011, Dublin, Ireland, 4/09/11.

Paakinaho, K, Heino, H, Väisänen, J, Törmälä, P & Kellomäki, M 2011, Effect of lactide monomer on the hydrolytic degradation and performance of melt processed poly(lactide-coglycolide) 85L/15G. in *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011.* 24th European Conference on Biomaterials, EBS 2011, Dublin, Ireland, 4/09/11.

Cetina-Diaz, SM, Vargas-Coronado, RF, Cervantes-Uc, JM, Cauich-Rodríguez, JV, Ahola, N, Paakinaho, K & Kellomaki, M 2011, HA composites of segmented polyurethanes prepared with glutamine or ascorbic acid as chain extenders for bone tissue regeneration. in *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011.* 24th European Conference on Biomaterials, EBS 2011, Dublin, Ireland, 4/09/11.

Lahti, J, Lavonen, J, Lahtinen, K, Johansson, P, Seppänen, T & Cameron, DC 2016, Improved properties for packaging materials by nanoscale surface modification and ALD barrier coating. in *TAPPI International Conference on Nanotechnology for Renewable Materials 2016.* vol. 2, TAPPI Press, pp. 684-706, TAPPI International Conference on Nanotechnology for Renewable Materials, 1/01/00.

Leroy, HA, Vermandel, M, Tétard, MC, Lejeune, JP, Mordon, S & Reyns, N 2015, Interstitial photodynamic therapy and glioblastoma: Light fractionation study on a preclinical model: Preliminary results. in *Optical Techniques in Neurosurgery, Neurophotonics, and Optogenetics II.* vol. 9305, 93050D, SPIE, Optical Techniques in Neurosurgery, Neurophotonics, and Optogenetics II, San Francisco, United States, 7/02/15. https://doi.org/10.1117/12.2079347

Wirdatmadja, S, Johari, P, Balasubramaniam, S, Bae, Y, Stachowiak, MK & Jornet, JM 2018, Light propagation analysis in nervous tissue for wireless optogenetic nanonetworks. in *Optogenetics and Optical Manipulation 2018.*, 104820R, SPIE, Optogenetics and Optical Manipulation, San Francisco, United States, 27/01/18. https://doi.org/10.1117/12.2288786

Vimieiro, RB, Borges, LR, Caron, RF, Barufaldi, B, Bakic, PR, Maidment, ADA & Vieira, MAC 2019, Noise measurements from reconstructed digital breast tomosynthesis. in TG Schmidt, G-H Chen & H Bosmans (eds), *Medical Imaging 2019: Physics of Medical Imaging.*, 109480C, Progress in Biomedical Optics and Imaging - Proceedings of SPIE, vol. 10948, SPIE, IEEE, Medical Imaging, 1/01/00. https://doi.org/10.1117/12.2512977

Käpylä, E, Aydogan, DB, Turunen, S, Hyttinen, J & Kellomäki, M 2011, Picosecond laser-induced polymerization of highly porous microscaffolds. in *24th European Conference on Biomaterials - Annual Conference of the European Society for Biomaterials, ESB 2011.* 24th European Conference on Biomaterials, EBS 2011, Dublin, Ireland, 4/09/11.

Borges, LR, Bakic, PR, Foi, A, Maidment, ADA & Vieira, MAC 2017, Pipeline for effective denoising of digital mammography and digital breast tomosynthesis. in *Medical Imaging 2017: Physics of Medical Imaging.*, 1013206, Progress in biomedical optics and imaging, SPIE, Medical Imaging, 1/01/00. https://doi.org/10.1117/12.2255058

Lahtinen, K, Maydannik, P, Kääriäinen, T, Seppänen, T, Cameron, DC, Johansson, P, Kraft, M & Kuusipalo, J 2013, Roll-to-roll atomic layer deposition for flexible substrates. in *TAPPI International Conference on Nanotechnology 2013.* TAPPI Press, pp. 726-739, TAPPI International Conference on Nanotechnology 2013, Stockholm, Sweden, 24/06/13.

Stepien, M, Chinga-Carrasco, G, Saarinen, JJ, Teisala, H, Tuominen, M, Aromaa, M, Haapanen, J, Kuusipalo, J, Mäkelä, JM & Toivakka, M 2013, Wear resistance of nanoparticle coatings on paperboard. in *TAPPI International Conference on Nanotechnology 2013.* TAPPI Press, pp. 821-829, TAPPI International Conference on Nanotechnology 2013, Stockholm, Sweden, 24/06/13.

Kroon, M, Talvitie, E, Miettinen, S & Kellomäki, M 2018, 'A COMPARATIVE IN VITRO STUDY OF CELL GROWTH ON TEXTILE SCAFFOLDS FOR TISSUE ENGINEERING APPLICATIONS' Paper presented at ESB2018 - 29th Annual Meeting of European Society for Biomaterials, Maastricht, Netherlands, 9/09/18 - 13/09/18, .

Pammo, A, Schouten, M, Virtanen, J & Tuukkanen, S 2016, 'Biomaterials for Electronics' pp. 1-1.

Kroon, M, Talvitie, E, Miettinen, S & Kellomäki, M 2018, 'Cell response to round and star-shaped polylactide fibers' Paper presented at BioMediTech Research Day 2018, Tampere, Finland, 23/11/18, .

Virtanen, J & Tuukkanen, S 2017, 'Multi-material bio-printing facilities' Paper presented at BMT and MED Research Day 2017, Tampere, Finland, 26/10/17 - 26/10/17, .

Veber, A, Lu, Z, Vermillac, M, Pigeonneau, F, Blanc, W & Petit, L 2019, 'Nano-structured optical fibers made of glass-ceramics, and phase separated and metallic particle-containing glasses', *Fibers*, vol. 7, no. 12. https://doi.org/10.3390/fib7120105

Nymark, P, Bakker, M, Dekkers, S, Franken, R, Fransman, W, García-Bilbao, A, Greco, D, Gulumian, M, Hadrup, N, Halappanavar, S, Hongisto, V, Hougaard, KS, Jensen, KA, Kohonen, P, Koivisto, AJ, Dal Maso, M, Oosterwijk, T, Poikkimäki, M, Rodriguez-Llopis, I, Stierum, R, Sørli, JB & Grafström, R 2020, 'Toward Rigorous Materials Production: New Approach Methodologies Have Extensive Potential to Improve Current Safety Assessment Practices', *Small*, vol. 16, no. 6, 1904749. https://doi.org/10.1002/smll.201904749