Donagh O'Shea

List of Publications by Year
in descending order

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34 papers	7,825 citations	218592 26 h-index	395590 33 g-index
34 all docs	34 docs citations	34 times ranked	11126 citing authors

#	Article	IF	Citations
1	Biomaterials & scaffolds for tissue engineering. Materials Today, 2011, 14, 88-95.	8.3	2,695
2	The effect of mean pore size on cell attachment, proliferation and migration in collagenâ€“glycosaminoglycan scaffolds for bone tissue engineering. Biomaterials, 2010, 31, 461-466.	5.7	1,635
3	Influence of freezing rate on pore structure in freeze-dried collagen-GAG scaffolds. Biomaterials, 2004, 25, 1077-1086.	5.7	647
4	Mesenchymal stem cell fate is regulated by the composition and mechanical properties of collagenâ€“glycosaminoglycan scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 11, 53-62.	1.5	228
5	A biomimetic multi-layered collagen-based scaffold for osteochondral repair. Acta Biomaterialia, 2014, 10, 1996-2004.	4.1	223
6	Novel Freeze-Drying Methods to Produce a Range of Collagenâ€“Glycosaminoglycan Scaffolds with Tailored Mean Pore Sizes. Tissue Engineering - Part C: Methods, 2010, 16, 887-894.	1.1	211
7	Scaffold Mean Pore Size Influences Mesenchymal Stem Cell Chondrogenic Differentiation and Matrix Deposition. Tissue Engineering - Part A, 2015, 21, 486-497.	1.6	195
8	The effects of collagen concentration and crosslink density on the biological, structural and mechanical properties of collagen-GAG scaffolds for bone tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 202-209.	1.5	192
9	Innovative Collagen Nanoâ€Hydroxyapatite Scaffolds Offer a Highly Efficient Nonâ€Viral Gene Delivery Platform for Stem Cellâ€Mediated Bone Formation. Advanced Materials, 2012, 24, 749-754.	11.1	182
10	Multi-layered collagen-based scaffolds for osteochondral defect repair in rabbits. Acta Biomaterialia, 2016, 32, 149-160.	4.1	170
11	Combinatorial Gene Therapy Accelerates Bone Regeneration: Nonâ€Viral Dual Delivery of VEGF and BMP2 in a Collagenâ€Nanohydroxyapatite Scaffold. Advanced Healthcare Materials, 2015, 4, 223-227.	3.9	151
12	Cell-free multi-layered collagen-based scaffolds demonstrate layer specific regeneration of functional osteochondral tissue in caprine joints. Biomaterials, 2016, 87, 69-81.	5.7	135
13	Addition of hyaluronic acid improves cellular infiltration and promotes early-stage chondrogenesis in a collagen-based scaffold for cartilage tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 11, 41-52.	1.5	134
14	Multifunctional biomaterials from the sea: Assessing the effects of chitosan incorporation into collagen scaffolds on mechanical and biological functionality. Acta Biomaterialia, 2016, 43, 160-169.	4.1	123
15	Translating the role of osteogenic-angiogenic coupling in bone formation: Highly efficient chitosan-pDNA activated scaffolds can accelerate bone regeneration in critical-sized bone defects. Biomaterials, 2017, 149, 116-127.	5.7	106
16	Development of a gene-activated scaffold platform for tissue engineering applications using chitosan-pDNA nanoparticles on collagen-based scaffolds. Journal of Controlled Release, 2015, 210, 84-94.	4.8	95
17	The development of non-viral gene-activated matrices for bone regeneration using polyethyleneimine (PEI) and collagen-based scaffolds. Journal of Controlled Release, 2012, 158, 304-311.	4.8	93
18	Advanced Strategies for Articular Cartilage Defect Repair. Materials, 2013, 6, 637-668.	1.3	92

#	Article	IF	Citations
19	Towards in vitro vascularisation of collagen-GAG scaffolds. , 2011, 21, 15-30.		70
20	Effect of collagenâ€glycosaminoglycan scaffold pore size on matrix mineralization and cellular behavior in different cell types. Journal of Biomedical Materials Research - Part A, 2016, 104, 291-304.	2.1	68
21	Delivery of the improved BMP-2-Advanced plasmid DNA within a gene-activated scaffold accelerates mesenchymal stem cell osteogenesis and critical size defect repair. Journal of Controlled Release, 2018, 283, 20-31.	4.8	58
22	Highly versatile cell-penetrating peptide loaded scaffold for efficient and localised gene delivery to multiple cell types: From development to application in tissue engineering. Biomaterials, 2019, 216, 119277.	5.7	51
23	In vitro efficacy of a gene-activated nerve guidance conduit incorporating non-viral PEI-pDNA nanoparticles carrying genes encoding for NGF, GDNF and c-Jun. Acta Biomaterialia, 2018, 75, 115-128.	4.1	41
24	Pro-angiogenic impact of SDF-1Î± gene-activated collagen-based scaffolds in stem cell driven angiogenesis. International Journal of Pharmaceutics, 2018, 544, 372-379.	2.6	40
25	Scaffoldâ€Based Delivery of Nucleic Acid Therapeutics for Enhanced Bone and Cartilage Repair. Journal of Orthopaedic Research, 2019, 37, 1671-1680.	1.2	34
26	Activation of the SOXâ€5, SOXâ€6, and SOXâ€9 Trio of Transcription Factors Using a Geneâ€Activated Scaffold Stimulates Mesenchymal Stromal Cell Chondrogenesis and Inhibits Endochondral Ossification. Advanced Healthcare Materials, 2020, 9, e1901827.	3.9	29
27	Layered Double Hydroxide as a Potent Non-viral Vector for Nucleic Acid Delivery Using Gene-Activated Scaffolds for Tissue Regeneration Applications. Pharmaceutics, 2020, 12, 1219.	2.0	26
28	Gene activated scaffolds incorporating star-shaped polypeptide-pDNA nanomedicines accelerate bone tissue regenerationin vivo. Biomaterials Science, 2021, 9, 4984-4999.	2.6	20
29	Articulation inspired by nature: a review of biomimetic and biologically active 3D printed scaffolds for cartilage tissue engineering. Biomaterials Science, 2022, 10, 2462-2483.	2.6	19
30	Controlled Nonâ€Viral Gene Delivery in Cartilage and Bone Repair: Current Strategies and Future Directions. Advanced Therapeutics, 2018, 1, 1800038.	1.6	18
31	SDFâ€1Î± geneâ€activated collagen scaffold drives functional differentiation of human Schwann cells for wound healing applications. Biotechnology and Bioengineering, 2021, 118, 725-736.	1.7	13
32	Systematic Comparison of Biomaterialsâ€Based Strategies for Osteochondral and Chondral Repair in Large Animal Models. Advanced Healthcare Materials, 2021, 10, e2100878.	3.9	11
33	The development of natural polymer scaffold-based therapeutics for osteochondral repair. Biochemical Society Transactions, 2020, 48, 1433-1445.	1.6	11
34	A highly porous type II collagen containing scaffold for the treatment of cartilage defects enhances MSC chondrogenesis and early cartilaginous matrix deposition. Biomaterials Science, 2022, 10, 970-983.	2.6	9