Richard O C Oreffo

List of Publications by Year
in descending order

345 papers	24,640 citations	7096 78 h-index	10157 140 g-index
355 all docs	355 docs citations	355 times ranked	25462 citing authors

#	Article	IF	Citations
1	The control of human mesenchymal cell differentiation using nanoscale symmetry and disorder. Nature Materials, 2007, 6, 997-1003.	27.5	2,177
2	Harnessing nanotopography and integrinâ€“matrix interactions to influence stem cell fate. Nature Materials, 2014, 13, 558-569.	27.5	921
3	Osteogenesis and angiogenesis: The potential for engineering bone. , 2008, 15, 100-114.		824
4	Oxygen-derived free radicals stimulate osteoclastic bone resorption in rodent bone in vitro and in vivo.. Journal of Clinical Investigation, 1990, 85, 632-639.	8.2	727
5	Nanoscale surfaces for the long-term maintenance of mesenchymal stem cell phenotype and multipotency. Nature Materials, 2011, 10, 637-644.	27.5	710
6	Bone Tissue Engineering: Hope vs Hype. Biochemical and Biophysical Research Communications, 2002, 292, 1-7.	2.1	490
7	Biofabrication of bone tissue: approaches, challenges and translation for bone regeneration. Biomaterials, 2016, 83, 363-382.	11.4	483
8	Hypoxia inducible factors regulate pluripotency and proliferation in human embryonic stem cells cultured at reduced oxygen tensions. Reproduction, 2010, 139, 85-97.	2.6	342
9	Quality of Life in Sarcopenia and Frailty. Calcified Tissue International, 2013, 93, 101-120.	3.1	310
10	Osteoprogenitor response to semi-ordered and random nanotopographies. Biomaterials, 2006, 27, 2980-2987.	11.4	309
11	Association between the abnormal expression of matrix-degrading enzymes by human osteoarthritic chondrocytes and demethylation of specific CpG sites in the promoter regions. Arthritis and Rheumatism, 2005, 52, 3110-3124.	6.7	307
12	Osteoprogenitor response to defined topographies with nanoscale depths. Biomaterials, 2006, 27, 1306-1315.	11.4	297
13	Activation of the bone-derived latent TGF beta complex by isolated osteoclasts. Biochemical and Biophysical Research Communications, 1989, 158, 817-823.	2.1	276
14	Nanotopographical Control of Stem Cell Differentiation. Journal of Tissue Engineering, 2010, 1, 120623.	5.5	276
15	Clay: New Opportunities for Tissue Regeneration and Biomaterial Design. Advanced Materials, 2013, 25, 4069-4086.	21.0	271
16	Human osteoprogenitor growth and differentiation on synthetic biodegradable structures after surface modification. Bone, 2001, 29, 523-531.	2.9	249
17	The use of nanoscale topography to modulate the dynamics of adhesion formation in primary osteoblasts and ERK/MAPK signalling in STRO-1+ enriched skeletal stem cells. Biomaterials, 2009, 30, 5094-5103.	11.4	248
18	Fabrication of pillar-like titania nanostructures on titanium and their interactions with human skeletal stem cells. Acta Biomaterialia, 2009, 5, 1433-1441.	8.3	246

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19	Development of a clay based bioink for 3D cell printing for skeletal application. Biofabrication, 2017, 9, 034103.	7.1	238
20	The effect of the delivery of vascular endothelial growth factor and bone morphogenic protein-2 to osteoprogenitor cell populations on bone formation. Biomaterials, 2010, 31, 1242-1250.	11.4	214
21	The potential of biomimesis in bone tissue engineering: lessons from the design and synthesis of invertebrate skeletons. Bone, 2002, 30, 810-815.	2.9	211
22	Epithelial mechanobiology, skin wound healing, and the stem cell niche. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 397-409.	3.1	209
23	The effect of anisotropic architecture on cell and tissue infiltration into tissue engineering scaffolds. Biomaterials, 2006, 27, 5909-5917.	11.4	201
24	Clay nanoparticles for regenerative medicine and biomaterial design: A review of clay bioactivity. Biomaterials, 2018, 159, 204-214.	11.4	201
25	Bone Tissue Engineering. Current Molecular Biology Reports, 2015, 1, 132-140.	1.6	193
26	Mesenchymal Stem Cells: Lineage, Plasticity, and Skeletal Therapeutic Potential. Stem Cell Reviews and Reports, 2005, 1, 169-178.	5.6	182
27	Biomimetic Collagen Scaffolds for Human Bone Cell Growth and Differentiation. Tissue Engineering, 2004, 10, 1148-1159.	4.6	179
28	Interconversion potential of cloned human marrow adipocytes in vitro. Bone, 1999, 24, 549-554.	2.9	172
29	Bone and metal: An orthopaedic perspective on osseointegration of metals. Acta Biomaterialia, 2014, 10, 4043-4057.	8.3	172
30	The cell in the ink: Improving biofabrication by printing stem cells for skeletal regenerative medicine. Biomaterials, 2019, 209, 10-24.	11.4	169
31	Bridging the regeneration gap: Stem cells, biomaterials and clinical translation in bone tissue engineering. Archives of Biochemistry and Biophysics, 2008, 473, 124-131.	3.0	161
32	Adenoviral BMP-2 Gene Transfer in Mesenchymal Stem Cells: In Vitro and in Vivo Bone Formation on Biodegradable Polymer Scaffolds. Biochemical and Biophysical Research Communications, 2002, 292, 144-152.	2.1	160
33	Interactions with nanoscale topography: Adhesion quantification and signal transduction in cells of osteogenic and multipotent lineage. Journal of Biomedical Materials Research - Part A, 2009, 91A, 195-208.	4.0	160
34	Temporal Analysis of Rat Growth Plates: Cessation of Growth with Age Despite Presence of a Physis. Journal of Histochemistry and Cytochemistry, 2003, 51, 373-383.	2.5	156
35	Adhesion formation of primary human osteoblasts and the functional response of mesenchymal stem cells to 330â€Šnm deep microgrooves. Journal of the Royal Society Interface, 2008, 5, 1231-1242.	3.4	156
36	Future potentials for using osteogenic stem cells and biomaterials in orthopedics. Bone, 1999, 25, 5S-9S.	2.9	155

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37	Skeletal Progenitor Cells and Ageing Human Populations. Clinical Science, 1998, 94, 549-555.	4.3	150
38	Induction of Human Osteoprogenitor Chemotaxis, Proliferation, Differentiation, and Bone Formation by Osteoblast Stimulating Factor-1/Pleiotrophin: Osteoconductive Biomimetic Scaffolds for Tissue Engineering. Journal of Bone and Mineral Research, 2003, 18, 47-57.	2.8	149
39	Tissue engineered bone using select growth factors: A comprehensive review of animal studies and clinical translation studies in man. , 2014, 28, 166-208.		149
40	Clay Gels For the Delivery of Regenerative Microenvironments. Advanced Materials, 2011, 23, 3304-3308.	21.0	147
41	DNA demethylation at specific CpG sites in the <i>IL1B</i> promoter in response to inflammatory cytokines in human articular chondrocytes. Arthritis and Rheumatism, 2009, 60, 3303-3313.	6.7	146
42	Osteogenic and angiogenic tissue formation in high fidelity nanocomposite Laponite-gelatin bioinks. Biofabrication, 2019, 11, 035027.	7.1	142
43	Computational modelling of cell spreading and tissue regeneration in porous scaffolds. Biomaterials, 2007, 28, 1926-1940.	11.4	140
44	The effect of mesenchymal populations and vascular endothelial growth factor delivered from biodegradable polymer scaffolds on bone formation. Biomaterials, 2008, 29, 1892-1900.	11.4	138
45	Regulated Transcription of Human Matrix Metalloproteinase 13 (MMP13) and Interleukin-1Î² (IL1B) Genes in Chondrocytes Depends on Methylation of Specific Proximal Promoter CpG Sites. Journal of Biological Chemistry, 2013, 288, 10061-10072.	3.4	133
46	Natural Marine Sponge Fiber Skeleton: A Biomimetic Scaffold for Human Osteoprogenitor Cell Attachment, Growth, and Differentiation. Tissue Engineering, 2003, 9, 1159-1166.	4.6	130
47	Experimental characterization and computational modelling of two-dimensional cell spreading for skeletal regeneration. Journal of the Royal Society Interface, 2007, 4, 1107-1117.	3.4	123
48	Latent Forms of Transforming Growth Factor-Î² (TGFÎ²) Derived from Bone Cultures: Identification of a Naturally Occurring 100-kDa Complex with Similarity to Recombinant Latent TGFÎ². Molecular Endocrinology, 1991, 5, 741-751.	3.7	121
49	A review of hydrogel use in fracture healing and bone regeneration. Journal of Tissue Engineering and Regenerative Medicine, 2016, 10, 187-198.	2.7	121
50	Controlled Differentiation of Human Bone Marrow Stromal Cells Using Magnetic Nanoparticle Technology. Tissue Engineering - Part A, 2010, 16, 3241-3250.	3.1	117
51	Using Nanotopography and Metabolomics to Identify Biochemical Effectors of Multipotency. ACS Nano, 2012, 6, 10239-10249.	14.6	114
52	Nanotopographical Control of Human Osteoprogenitor Differentiation. Current Stem Cell Research and Therapy, 2007, 2, 129-138.	1.3	112
53	Skeletal stem cell physiology on functionally distinct titania nanotopographies. Biomaterials, 2011, 32, 7403-7410.	11.4	112
54	Growth and differentiation of human bone marrow osteoprogenitors on novel calcium phosphate cements. Biomaterials, 1998, 19, 1845-1854.	11.4	109

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55	Human Osteoprogenitor Bone Formation Using Encapsulated Bone Morphogenetic Protein 2 in Porous Polymer Scaffolds. Tissue Engineering, 2004, 10, 1037-1045.	4.6	109
56	Concise Review: Bridging the Gap: Bone Regeneration Using Skeletal Stem Cell-Based Strategiesâ€"Where Are We Now?. Stem Cells, 2014, 32, 35-44.	3.2	109
57	Tissue engineering strategies for cartilage generationâ€"Micromass and three dimensional cultures using human chondrocytes and a continuous cell line. Biochemical and Biophysical Research Communications, 2005, 333, 609-621.	2.1	106
58	A surprisingly poor correlation between in vitro and in vivo testing of biomaterials for bone regeneration: results of a multicentre analysis. , 2016, 31, 312-322.		103
59	Gene Delivery in Bone Tissue Engineering: Progress and Prospects Using Viral and Nonviral Strategies. Tissue Engineering, 2004, 10, 295-307.	4.6	102
60	The epigenetic effect of glucosamine and a nuclear factor-kappa B (NF-kB) inhibitor on primary human chondrocytes â€" Implications for osteoarthritis. Biochemical and Biophysical Research Communications, 2011, 405, 362-367.	2.1	102
61	Development of specific collagen scaffolds to support the osteogenic and chondrogenic differentiation of human bone marrow stromal cells. Biomaterials, 2008, 29, 3105-3116.	11.4	100
62	Nanotopographical Effects on Mesenchymal Stem Cell Morphology and Phenotype. Journal of Cellular Biochemistry, 2014, 115, 380-390.	2.6	100
63	Patients with Primary Osteoarthritis Show No Change with Ageing in the Number of Osteogenic Precursors. Scandinavian Journal of Rheumatology, 1998, 27, 415-424.	1.1	98
64	Intrauterine Exposure to a Maternal Low Protein Diet Reduces Adult Bone Mass and Alters Growth Plate Morphology in Rats. Calcified Tissue International, 2002, 71, 493-498.	3.1	98
65	Delivery systems for bone growth factors â€" the new players in skeletal regeneration. Journal of Pharmacy and Pharmacology, 2010, 56, 415-427.	2.4	97
66	Bridging the gap. Nature, 2005, 433, 19-19.	27.8	96
67	Versatile Biocompatible Polymer Hydrogels: Scaffolds for Cell Growth. Angewandte Chemie - International Edition, 2009, 48, 978-982.	13.8	93
68	Dynamic Surfaces for the Study of Mesenchymal Stem Cell Growth through Adhesion Regulation. ACS Nano, 2016, 10, 6667-6679.	14.6	93
69	Characterization and Multipotentiality of Human Fetal Femur-Derived Cells: Implications for Skeletal Tissue Regeneration. Stem Cells, 2006, 24, 1042-1053.	3.2	92
70	Effect of vitamin a on bone resorption: Evidence for direct stimulation of isolated chicken osteoclasts by retinol and retinoic acid. Journal of Bone and Mineral Research, 1988, 3, 203-210.	2.8	92
71	Human iPSC-derived MSCs (iMSCs) from aged individuals acquire a rejuvenation signature. Stem Cell Research and Therapy, 2019, 10, 100.	5.5	90
72	Immunoselection and adenoviral genetic modulation of human osteoprogenitors: in vivo bone formation on PLA scaffold. Biochemical and Biophysical Research Communications, 2002, 299, 208-215.	2.1	88

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73	Genomic expression of mesenchymal stem cells to altered nanoscale topographies. Journal of the Royal Society Interface, 2008, 5, 1055-1065.	3.4	88
74	Whole proteome analysis of osteoprogenitor differentiation induced by disordered nanotopography and mediated by ERK signalling. Biomaterials, 2009, 30, 4723-4731.	11.4	86
75	Effects of TGFÎ² and BFGF on the differentiation of human bone marrow stromal fibroblasts. Cell Biology International, 1999, 23, 185-194.	3.0	85
76	Biomineralized Polysaccharide Capsules for Encapsulation, Organization, and Delivery of Human Cell Types and Growth Factors. Advanced Functional Materials, 2005, 15, 917-923.	14.9	85
77	Supercritical carbon dioxide generated vascular endothelial growth factor encapsulated poly(dl-lactic acid) scaffolds induce angiogenesis in vitro. Biochemical and Biophysical Research Communications, 2007, 352, 135-141.	2.1	84
78	Nanotopographical Cues Augment Mesenchymal Differentiation of Human Embryonic Stem Cells. Small, 2013, 9, 2140-2151.	10.0	84
79	Embryonic and Induced Pluripotent Stem Cells: Understanding, Creating, and Exploiting the Nano-Niche for Regenerative Medicine. ACS Nano, 2013, 7, 1867-1881.	14.6	84
80	Loss of methylation in CpG sites in the NFâ€ÎºB enhancer elements of inducible nitric oxide synthase is responsible for gene induction in human articular chondrocytes. Arthritis and Rheumatism, 2013, 65, 732-742.	6.7	84
81	Stochasticity and the Molecular Mechanisms of Induced Pluripotency. PLoS ONE, 2008, 3, e3086.	2.5	81
82	Boneâ€like Resorbable Silkâ€based Scaffolds for Loadâ€bearing Osteoregenerative Applications. Advanced Materials, 2009, 21, 75-78.	21.0	81
83	The chorioallantoic membrane (CAM) assay for the study of human bone regeneration: a refinement animal model for tissue engineering. Scientific Reports, 2016, 6, 32168.	3.3	81
84	Application of an acoustofluidic perfusion bioreactor for cartilage tissue engineering. Lab on A Chip, 2014, 14, 4475-4485.	6.0	79
85	Human Osteoprogenitor Bone Formation Using Encapsulated Bone Morphogenetic Protein 2 in Porous Polymer Scaffolds. Tissue Engineering, 2004, 10, 1037-1045.	4.6	78
86	Pleiotrophin/Osteoblast-Stimulating Factor 1: Dissecting Its Diverse Functions in Bone Formation. Journal of Bone and Mineral Research, 2002, 17, 2009-2020.	2.8	77
87	Evaluation of human bone marrow stromal cell growth on biodegradable polymer/BioglassÂ® composites. Biochemical and Biophysical Research Communications, 2006, 342, 1098-1107.	2.1	76
88	Epigenetic regulation of interleukin-8, an inflammatory chemokine, in osteoarthritis. Osteoarthritis and Cartilage, 2015, 23, 1946-1954.	1.3	75
89	Bone induction at physiological doses of BMP through localization by clay nanoparticle gels. Biomaterials, 2016, 99, 16-23.	11.4	73
90	Nanoclay-based 3D printed scaffolds promote vascular ingrowth ex vivo and generate bone mineral tissue in vitro and in vivo. Biofabrication, 2020, 12, 035010.	7.1	73

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91	Strategies for cell manipulation and skeletal tissue engineering using high-throughput polymer blend formulation and microarray techniques. Biomaterials, 2010, 31, 2216-2228.	11.4	71
92	Absence of the lysophosphatidic acid receptor LPA1 results in abnormal bone development and decreased bone mass. Bone, 2011, 49, 395-403.	2.9	71
93	Association of Reduced Type IX Collagen Gene Expression in Human Osteoarthritic Chondrocytes With Epigenetic Silencing by DNA Hypermethylation. Arthritis and Rheumatology, 2014, 66, 3040-3051.	5.6	71
94	MagicWand: A Single, Designed Peptide That Assembles to Stable, Ordered Î±-Helical Fibers. Biochemistry, 2008, 47, 10365-10371.	2.5	68
95	Biocompatibility and osteogenic potential of human fetal femur-derived cells on surface selective laser sintered scaffolds. Acta Biomaterialia, 2009, 5, 2063-2071.	8.3	68
96	Inhibition of bone resorption by inorganic phosphate is mediated by both reduced osteoclast formation and decreased activity of mature osteoclasts. Journal of Bone and Mineral Research, 1991, 6, 473-478.	2.8	68
97	Characterization of New PEEK/HA Composites with 3D HA Network Fabricated by Extrusion Freeforming. Molecules, 2016, 21, 687.	3.8	68
98	Hope versus hype: what can additive manufacturing realistically offer trauma and orthopedic surgery?. Regenerative Medicine, 2014, 9, 535-549.	1.7	67
99	In Vivo Assessment of Bone Regeneration in Alginate/Bone ECM Hydrogels with Incorporated Skeletal Stem Cells and Single Growth Factors. PLoS ONE, 2015, 10, e0145080.	2.5	67
100	Maternal protein deficiency affects mesenchymal stem cell activity in the developing offspring. Bone, 2003, 33, 100-107.	2.9	65
101	Alternative and complementary therapies in osteoarthritis and cartilage repair. Aging Clinical and Experimental Research, 2020, 32, 547-560.	2.9	65
102	Growthâ€Factor Free Multicomponent Nanocomposite Hydrogels That Stimulate Bone Formation. Advanced Functional Materials, 2020, 30, 1906205.	14.9	65
103	Skeletal stem cells: Phenotype, biology and environmental niches informing tissue regeneration. Molecular and Cellular Endocrinology, 2008, 288, 11-21.	3.2	64
104	Inhibitory Effects of the Bone-Derived Growth Factors Osteoinductive Factor and Transforming Growth Factor-Î² on Isolated Osteoclasts*. Endocrinology, 1990, 126, 3069-3075.	2.8	62
105	Suppressors of cytokine signalling (SOCS) are reduced in osteoarthritis. Biochemical and Biophysical Research Communications, 2011, 407, 54-59.	2.1	61
106	Expression of estrogen receptor-alpha in cells of the osteoclastic lineage. Histochemistry and Cell Biology, 1999, 111, 125-133.	1.7	59
107	Genetic manipulation of human mesenchymal progenitors to promote chondrogenesis using â€œbead-in-beadâ€• polysaccharide capsules. Biomaterials, 2008, 29, 58-65.	11.4	59
108	Development of in vivo Î¼CT evaluation of neovascularisation in tissue engineered bone constructs. Bone, 2008, 43, 195-202.	2.9	59

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109	A genomics approach in determining nanotopographical effects on MSC phenotype. Biomaterials, 2013, 34, 2177-2184.	11.4	59
110	Bisphosphonate nanoclay edge-site interactions facilitate hydrogel self-assembly and sustained growth factor localization. Nature Communications, 2020, 11, 1365.	12.8	59
111	Osteogenic lineage restriction by osteoprogenitors cultured on nanometric grooved surfaces: The role of focal adhesion maturation. Acta Biomaterialia, 2014, 10, 651-660.	8.3	58
112	Human bone marrow osteoprogenitors express estrogen receptor-alpha and bone morphogenetic proteins 2 and 4 mRNA during osteoblastic differentiation. , 1999, 75, 382-392.		57
113	Evaluation of skeletal tissue repair, Part 1: Assessment of novel growth-factor-releasing hydrogels in an ex vivo chick femur defect model. Acta Biomaterialia, 2014, 10, 4186-4196.	8.3	57
114	Modulation of osteogenesis and adipogenesis by human serum in human bone marrow cultures. European Journal of Cell Biology, 1997, 74, 251-61.	3.6	57
115	Osteoprogenitor response to low-adhesion nanotopographies originally fabricated by electron beam lithography. Journal of Materials Science: Materials in Medicine, 2007, 18, 1211-1218.	3.6	56
116	Evaluation of skeletal tissue repair, Part 2: Enhancement of skeletal tissue repair through dual-growth-factor-releasing hydrogels within an ex vivo chick femur defect model. Acta Biomaterialia, 2014, 10, 4197-4205.	8.3	56
117	Printing bone in a gel: using nanocomposite bioink to print functionalised bone scaffolds. Materials Today Bio, 2019, 4, 100028.	5.5	56
118	A microarray approach to the identification of polyurethanes for the isolation of human skeletal progenitor cells and augmentation of skeletal cell growth. Biomaterials, 2009, 30, 1045-1055.	11.4	54
119	Intrauterine programming of bone. Part 2: Alteration of skeletal structure. Osteoporosis International, 2008, 19, 157-167.	3.1	53
120	Changes in the antiangiogenic properties of articular cartilage in osteoarthritis. Journal of Orthopaedic Science, 2003, 8, 849-857.	1.1	52
121	Strategies to Promote Chondrogenesis and Osteogenesis from Human Bone Marrow Cells and Articular Chondrocytes Encapsulated in Polysaccharide Templates. Tissue Engineering, 2006, 12, 2789-2799.	4.6	52
122	Gene therapy used for tissue engineering applicationsâ€. Journal of Pharmacy and Pharmacology, 2010, 59, 329-350.	2.4	51
123	DNA methylation of the RUNX2 P1 promoter mediates MMP13 transcription in chondrocytes. Scientific Reports, 2017, 7, 7771.	3.3	50
124	<sup />The Chorioallantoic Membrane Assay for Biomaterial Testing in Tissue Engineering: A Short-Term<i>In Vivo</i>Preclinical Model. Tissue Engineering - Part C: Methods, 2017, 23, 938-952.	2.1	50
125	High-resolution 3D imaging of osteocytes and computational modelling in mechanobiology: insights on bone development, ageing, health and disease. , 2016, 31, 264-295.		50
126	Skeletal Tissue Regeneration: Current Approaches, Challenges, and Novel Reconstructive Strategies for an Aging Population. Tissue Engineering - Part B: Reviews, 2011, 17, 307-320.	4.8	49

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127	Nanotopography controls cell cycle changes involved with skeletal stem cell self-renewal and multipotency. Biomaterials, 2017, 116, 10-20.	11.4	49
128	Effects of targeted overexpression of pleiotrophin on postnatal bone development. Biochemical and Biophysical Research Communications, 2002, 298, 324-332.	2.1	48
129	A new take on an old story: chick limb organ culture for skeletal niche development and regenerative medicine evaluation. , 2013, 26, 91-106.		48
130	Mineralized polysaccharide capsules as biomimetic microenvironments for cell, gene and growth factor delivery in tissue engineering. Soft Matter, 2006, 2, 732.	2.7	47
131	A comparison of polymer and polymerâ€“hydroxyapatite composite tissue engineered scaffolds for use in bone regeneration. An <i>in vitro</i> and <i>in vivo</i> study. Journal of Biomedical Materials Research - Part A, 2014, 102, 2613-2624.	4.0	47
132	Expansion of human bone marrow stromal cells on poly-(dl-lactide-co-glycolide) (PDLLGA) hollow fibres designed for use in skeletal tissue engineering. Biomaterials, 2007, 28, 5332-5343.	11.4	46
133	The interaction of human bone marrow cells with nanotopographical features in three dimensional constructs. Journal of Biomedical Materials Research - Part A, 2006, 79A, 431-439.	4.0	45
134	Mammalian cell survival and processing in supercritical CO2. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7426-7431.	7.1	45
135	Epigenetic modifiers influence lineage commitment of human bone marrow stromal cells: Differential effects of 5-aza-deoxycytidine and trichostatin A. Differentiation, 2011, 81, 35-41.	1.9	45
136	MicroRNA-146a Regulates Human Foetal Femur Derived Skeletal Stem Cell Differentiation by Down-Regulating SMAD2 and SMAD3. PLoS ONE, 2014, 9, e98063.	2.5	45
137	Label-free enrichment of primary human skeletal progenitor cells using deterministic lateral displacement. Lab on A Chip, 2019, 19, 513-523.	6.0	45
138	Stimulation of human bone marrow stromal cells using growth factor encapsulated calcium carbonate porous microspheres. Journal of Materials Chemistry, 2004, 14, 2206.	6.7	44
139	Fabrication of hydroxyapatite sponges by dextran sulphate/amino acid templating. Biomaterials, 2005, 26, 6652-6656.	11.4	44
140	Intrauterine programming of bone. Part 1: Alteration of the osteogenic environment. Osteoporosis International, 2008, 19, 147-156.	3.1	44
141	The application of human bone marrow stromal cells and poly(dl-lactic acid) as a biological bone graft extender in impaction bone grafting. Biomaterials, 2008, 29, 3221-3227.	11.4	44
142	Prospective isolation of human bone marrow stromal cell subsets: A comparative study between Stro-1-, CD146- and CD105-enriched populations. Journal of Tissue Engineering, 2014, 5, 204173141455176.	5.5	44
143	CELLS CULTURED FROM THE GROWING TIP OF RED DEER ANTLER EXPRESS ALKALINE PHOSPHATASE AND PROLIFERATE IN RESPONSE TO INSULIN-LIKE GROWTH FACTOR-I. Journal of Endocrinology, 1994, 143, R9-R16.	2.6	43
144	Phenotypic and Molecular Heterogeneity in Fibrodysplasia Ossificans Progressiva. Calcified Tissue International, 1999, 65, 250-255.	3.1	42

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145	Mechanical phenotyping of primary human skeletal stem cells in heterogeneous populations by real-time deformability cytometry. Integrative Biology (United Kingdom), 2016, 8, 616-623.	1.3	42
146	Disordered protein-graphene oxide co-assembly and supramolecular biofabrication of functional fluidic devices. Nature Communications, 2020, 11, 1182.	12.8	42
147	An ex vivo model for chondrogenesis and osteogenesisâ˜†. Biomaterials, 2007, 28, 2839-2849.	11.4	41
148	Raman spectroscopy and coherent anti-Stokes Raman scattering imaging: prospective tools for monitoring skeletal cells and skeletal regeneration. Journal of the Royal Society Interface, 2016, 13, 20160182.	3.4	41
149	Trapping single human osteoblast-like cells from a heterogeneous population using a dielectrophoretic microfluidic device. Biomicrofluidics, 2010, 4, .	2.4	40
150	MiR-146b is down-regulated during the chondrogenic differentiation of human bone marrow derived skeletal stem cells and up-regulated in osteoarthritis. Scientific Reports, 2017, 7, 46704.	3.3	40
151	Biological and mechanical enhancement of impacted allograft seeded with human bone marrow stromal cells: potential clinical role in impaction bone grafting. Regenerative Medicine, 2006, 1, 457-467.	1.7	39
152	Surface mobility regulates skeletal stem cell differentiation. Integrative Biology (United Kingdom), 2012, 4, 531.	1.3	39
153	Maternal high-fat diet: effects on offspring bone structure. Osteoporosis International, 2010, 21, 1703-1714.	3.1	38
154	Selfâ€Assembling Nanoclay Diffusion Gels for Bioactive Osteogenic Microenvironments. Advanced Healthcare Materials, 2018, 7, e1800331.	7.6	38
155	<i>De Novo</i> Design of Functional Coassembling Organicâ€"Inorganic Hydrogels for Hierarchical Mineralization and Neovascularization. ACS Nano, 2021, 15, 11202-11217.	14.6	38
156	Quantification of intracellular payload release from polymersome nanoparticles. Scientific Reports, 2016, 6, 29460.	3.3	37
157	Characterization of human skeletal stem and bone cell populations using dielectrophoresis. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 162-168.	2.7	36
158	Proteomic analysis of human osteoprogenitor response to disordered nanotopography. Journal of the Royal Society Interface, 2009, 6, 1075-1086.	3.4	35
159	Augmentation of skeletal tissue formation in impaction bone grafting using vaterite microsphere biocomposites. Biomaterials, 2009, 30, 1918-1927.	11.4	35
160	Nanopatterned Titanium Implants Accelerate Bone Formation In Vivo. ACS Applied Materials & Interfaces, 2020, 12, 33541-33549.	8.0	35
161	A Novel Approach for Studying the Temporal Modulation of Embryonic Skeletal Development Using Organotypic Bone Cultures and Microcomputed Tomography. Tissue Engineering - Part C: Methods, 2012, 18, 747-760.	2.1	34
162	Acoustically modulated biomechanical stimulation for human cartilage tissue engineering. Lab on A Chip, 2018, 18, 473-485.	6.0	33

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163	Nanovibrational Stimulation of Mesenchymal Stem Cells Induces Therapeutic Reactive Oxygen Species and Inflammation for Three-Dimensional Bone Tissue Engineering. ACS Nano, 2020, 14, 10027-10044.	14.6	33
164	MODULATION OF OSTEOGENIC DIFFERENTIATION IN HUMAN SKELETAL CELLSIN VITROBY 5-AZACYTIDINE. Cell Biology International, 1998, 22, 207-215.	3.0	32
165	Taking tissue-engineering principles into theater: augmentation of impacted allograft with human bone marrow stromal cells. Regenerative Medicine, 2006, 1, 685-692.	1.7	32
166	Mathematical modelling of skeletal repair. Biochemical and Biophysical Research Communications, 2004, 313, 825-833.	2.1	31
167	Skeletal stem cells and bone regeneration: Translational strategies from bench to clinic. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2010, 224, 1455-1470.	1.8	31
168	Supercritical CO2 fluid-foaming of polymers to increase porosity: A method to improve the mechanical and biocompatibility characteristics for use as a potential alternative to allografts in impaction bone grafting?. Acta Biomaterialia, 2012, 8, 1918-1927.	8.3	31
169	Adult mesenchymal stem cells and impaction grafting: a new clinical paradigm shift. Expert Review of Medical Devices, 2007, 4, 393-404.	2.8	30
170	Development of a slow non-viral DNA release system from PDLLA scaffolds fabricated using a supercritical CO2 technique. Biotechnology and Bioengineering, 2007, 98, 679-693.	3.3	30
171	Assessing the potential of colony morphology for dissecting the CFU-F population from human bone marrow stromal cells. Cell and Tissue Research, 2013, 352, 237-247.	2.9	30
172	In vivo delivery of VEGF RNA and protein to increase osteogenesis and intraosseous angiogenesis. Scientific Reports, 2019, 9, 17745.	3.3	30
173	Vibration-assisted bone-graft compaction in impaction bone grafting of the femur. Journal of Bone and Joint Surgery: British Volume, 2007, 89-B, 686-692.	3.4	29
174	Formation of a human-derived fat tissue layer in PdlLGA hollow fibre scaffolds for adipocyte tissue engineering. Biomaterials, 2009, 30, 1910-1917.	11.4	29
175	Characterisation of human bone marrow stromal cell heterogeneity for skeletal regeneration strategies using a two-stage colony assay and computational modelling. Bone, 2010, 46, 496-503.	2.9	29
176	Characterisation and evaluation of the regenerative capacity of Stro-4+ enriched bone marrow mesenchymal stromal cells using bovine extracellular matrix hydrogel and a novel biocompatible melt electro-written medical-grade polycaprolactone scaffold. Biomaterials, 2020, 247, 119998.	11.4	29
177	Effects of Novel Calcium Phosphate Cements on Human Bone Marrow Fibroblastic Cells. Tissue Engineering, 1998, 4, 293-303.	4.6	28
178	The effect of porosity of a biphasic ceramic scaffold on human skeletal stem cell growth and differentiation <i>in vivo</i>. Journal of Biomedical Materials Research - Part A, 2013, 101, 3431-3437.	4.0	28
179	Chondrogenic potential of human articular chondrocytes and skeletal stem cells: A comparative study. Journal of Biomaterials Applications, 2015, 29, 824-836.	2.4	28
180	Demethylation of an NF-Î°B enhancer element orchestrates iNOS induction in osteoarthritis and is associated with altered chondrocyte cell cycle. Osteoarthritis and Cartilage, 2016, 24, 1951-1960.	1.3	28

#	Article	IF	Citations
181	Translation of remote control regenerative technologies for bone repair. Npj Regenerative Medicine, 2018, 3, 9.	5.2	28
182	Imageâ€based sorting and negative dielectrophoresis for high purity cell and particle separation. Electrophoresis, 2019, 40, 2718-2727.	2.4	28
183	Modulation of bone morphogenetic protein-2 and bone morphogenetic protein-4 gene expression in osteoblastic cell lines. Cellular and Molecular Biology, 1998, 44, 1237-46.	0.9	28
184	Metabolomics: a valuable tool for stem cell monitoring in regenerative medicine. Journal of the Royal Society Interface, 2012, 9, 1713-1724.	3.4	27
185	Enhancing the osteogenic efficacy of human bone marrow aspirate: concentrating osteoprogenitors using wave-assisted filtration. Cytotherapy, 2013, 15, 242-252.	0.7	27
186	The effect of oxygen tension on human articular chondrocyte matrix synthesis: Integration of experimental and computational approaches. Biotechnology and Bioengineering, 2014, 111, 1876-1885.	3.3	27
187	Size and dielectric properties of skeletal stem cells change critically after enrichment and expansion from human bone marrow: consequences for microfluidic cell sorting. Journal of the Royal Society Interface, 2017, 14, 20170233.	3.4	27
188	Harnessing Polyhydroxyalkanoates and Pressurized Gyration for Hard and Soft Tissue Engineering. ACS Applied Materials & Interfaces, 2021, 13, 32624-32639.	8.0	27
189	EFFECTS OF BETA MERCAPTOETHANOL ON THE PROLIFERATION AND DIFFERENTIATION OF HUMAN OSTEOPROGENITOR CELLS. Cell Biology International, 1997, 21, 419-425.	3.0	26
190	The use of small interfering RNAs to inhibit adipocyte differentiation in human preadipocytes and fetal-femur-derived mesenchymal cells. Experimental Cell Research, 2006, 312, 1856-1864.	2.6	26
191	The future of bone regeneration: integrating AI into tissue engineering. Biomedical Physics and Engineering Express, 2021, 7, 052002.	1.2	26
192	Effects of interferon alpha on human osteoprogenitor cell growth and differentiation in vitro. , 1999, 74, 372-385.		25
193	Cold water cleaning of brain proteins, biofilm and bone â€“ harnessing an ultrasonically activated stream. Physical Chemistry Chemical Physics, 2015, 17, 20574-20579.	2.8	25
194	Genetically-programmed, mesenchymal stromal cell-laden & mechanically strong 3D bioprinted scaffolds for bone repair. Journal of Controlled Release, 2020, 325, 335-346.	9.9	25
195	A novel route to highly porous bioactive silica gels. Journal of Materials Chemistry, 2003, 13, 186-190.	6.7	24
196	Development of protocols for the first serial block-face scanning electron microscopy (SBF SEM) studies of bone tissue. Bone, 2020, 131, 115107.	2.9	24
197	A blueprint for translational regenerative medicine. Science Translational Medicine, 2020, 12, .	12.4	24
198	Characterization of a Cell Line Derived From a Human Giant Cell Tumor That Stimulates Osteoclastic Bone Resorption. Clinical Orthopaedics and Related Research, 1993, &NA;, 229???241.	1.5	23

#	Article	IF	Citations
199	Effects of Retinol on Activation of Latent Transforming Growth Factor-Î² by Isolated Osteoclasts*. Endocrinology, 1997, 138, 657-666.	2.8	23
200	Retroviral marking of human bone marrow fibroblasts: In vitro expansion and localization in calvarial sites after subcutaneous transplantation in vivo. Journal of Cellular Physiology, 2001, 186, 201-209.	4.1	23
201	Growth factors for skeletal reconstruction and fracture repair. Current Opinion in Investigational Drugs, 2004, 5, 419-23.	2.3	23
202	Osteogenesis: bone development from primitive progenitors. Biochemical Society Transactions, 1998, 26, 21-27.	3.4	22
203	In search of the skeletal stem cell: isolation and separation strategies at the macro/micro scale for skeletal regeneration. Lab on A Chip, 2011, 11, 1206.	6.0	22
204	Discovery and Evaluation of a Functional Ternary Polymer Blend for Bone Repair: Translation from a Microarray to a Clinical Model. Advanced Functional Materials, 2013, 23, 2850-2862.	14.9	22
205	Skeletal stem cell and bone implant interactions are enhanced by LASER titanium modification. Biochemical and Biophysical Research Communications, 2016, 473, 719-725.	2.1	22
206	Human mesenchymal factors induce rat hippocampalâ€•and human neural stem cell dependent oligodendrogenesis. Glia, 2018, 66, 145-160.	4.9	22
207	Nanoclayâ€"Polyamine Composite Hydrogel for Topical Delivery of Nitric Oxide Gas via Innate Gelation Characteristics of Laponite. Biomacromolecules, 2020, 21, 2096-2103.	5.4	22
208	The use of nanovibration to discover specific and potent bioactive metabolites that stimulate osteogenic differentiation in mesenchymal stem cells. Science Advances, 2021, 7, .	10.3	22
209	Transplanted Human Pluripotent Stem Cell-Derived Mesenchymal Stem Cells Support Liver Regeneration in Gunn Rats. Stem Cells and Development, 2018, 27, 1702-1714.	2.1	21
210	Structured nanofilms comprising LaponiteÂ® and bone extracellular matrix for osteogenic differentiation of skeletal progenitor cells. Materials Science and Engineering C, 2021, 118, 111440.	7.3	21
211	Materials-driven fibronectin assembly on nanoscale topography enhances mesenchymal stem cell adhesion, protecting cells from bacterial virulence factors and preventing biofilm formation. Biomaterials, 2022, 280, 121263.	11.4	21
212	Differential in-gel electrophoresis (DIGE) analysis of human bone marrow osteoprogenitor cell contact guidance. Acta Biomaterialia, 2009, 5, 1137-1146.	8.3	20
213	Effects of hypothyroidism on the structure and mechanical properties of bone in the ovine fetus. Journal of Endocrinology, 2011, 210, 189-198.	2.6	20
214	Epigenetic Regulation during Fetal Femur Development: DNA Methylation Matters. PLoS ONE, 2013, 8, e54957.	2.5	20
215	Tracking adipogenic differentiation of skeletal stem cells by label-free chemically selective imaging. Chemical Science, 2015, 6, 7089-7096.	7.4	20
216	Large animal<i>in vivo</i>evaluation of a binary blend polymer scaffold for skeletal tissue-engineering strategies; translational issues. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 1065-1076.	2.7	20

#	ARTICLE	IF	CITATIONS
217	Harnessing Nanotopography to Enhance Osseointegration of Clinical Orthopedic Titanium Implantsâ€"An in Vitro and in Vivo Analysis. Frontiers in Bioengineering and Biotechnology, 2018, 6, 44.	4.1	20
218	The role of lithium in the osteogenic bioactivity of clay nanoparticles. Biomaterials Science, 2021, 9, 3150-3161.	5.4	20
219	Novel Osteoinductive Biomimetic Scaffolds Stimulate Human Osteoprogenitor Activity--Implications for Skeletal Repair. Connective Tissue Research, 2003, 44, 312-317.	2.3	19
220	Effects of a surface topography composite with puerariae radix on human STRO-1-positive stem cells. Acta Biomaterialia, 2010, 6, 3694-3703.	8.3	19
221	Developmental Cues for Bone Formation from Parathyroid Hormone and Parathyroid Hormone-Related Protein in an<i>Ex Vivo</i>Organotypic Culture System of Embryonic Chick Femora. Tissue Engineering - Part C: Methods, 2012, 18, 984-994.	2.1	19
222	Skeletal stem cell isolation: A review on the state-of-the-art microfluidic label-free sorting techniques. Biotechnology Advances, 2016, 34, 908-923.	11.7	19
223	Human endothelial and foetal femur-derived stem cell co-cultures modulate osteogenesis and angiogenesis. Stem Cell Research and Therapy, 2016, 7, 13.	5.5	19
224	PEGylated liposomes associate with Wnt3A protein and expand putative stem cells in human bone marrow populations. Nanomedicine, 2017, 12, 845-863.	3.3	19
225	Regulation of the Bone Vascular Network is Sexually Dimorphic. Journal of Bone and Mineral Research, 2019, 34, 2117-2132.	2.8	19
226	Evolving applications of the egg: chorioallantoic membrane assay and<i>ex vivo</i>organotypic culture of materials for bone tissue engineering. Journal of Tissue Engineering, 2020, 11, 204173142094273.	5.5	19
227	Animal models of maternal nutrition and altered offspring bone structure â€" Bone development across the lifecourse. , 2011, 22, 321-332.		19
228	Hydroxyapatite coated with insulin-like growth factor 1 (IGF1) stimulates human osteoblast activity in vitro. Acta Orthopaedica, 1999, 70, 217-220.	1.4	18
229	Experimentalâ€"Computational Evaluation of Human Bone Marrow Stromal Cell Spreading on Trabecular Bone Structures. Annals of Biomedical Engineering, 2009, 37, 1165-1176.	2.5	18
230	A tissue engineering strategy for the treatment of avascular necrosis of the femoral head. Journal of the Royal College of Surgeons of Edinburgh, 2013, 11, 319-325.	1.8	18
231	Embossing of micropatterned ceramics and their cellular response. Journal of Biomedical Materials Research - Part A, 2013, 101, 3247-3255.	4.0	18
232	Site-Dependent Reference Point Microindentation Complements Clinical Measures for Improved Fracture Risk Assessment at the Human Femoral Neck. Journal of Bone and Mineral Research, 2016, 31, 196-203.	2.8	18
233	Transfer learning efficiently maps bone marrow cell types from mouse to human using single-cell RNA sequencing. Communications Biology, 2020, 3, 736.	4.4	18
234	In vitro and in vivo methods to determine the interactions of osteogenic cells with biomaterials. Journal of Materials Science: Materials in Medicine, 1999, 10, 607-611.	3.6	17

#	Article	IF	Citations
235	The effect of pre-coating human bone marrow stromal cells with hydroxyapatite/amino acid nanoconjugates on osteogenesis. Biomaterials, 2009, 30, 3174-3182.	11.4	17
236	Variability in reference point microindentation and recommendations for testing cortical bone: Location, thickness and orientation heterogeneity. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 292-304.	3.1	17
237	Biomimetic oyster shellâ€"replicated topography alters the behaviour of human skeletal stem cells. Journal of Tissue Engineering, 2018, 9, 204173141879400.	5.5	17
238	Novel Osteoinductive Biomimetic Scaffolds Stimulate Human Osteoprogenitor Activity--Implications for Skeletal Repair. Connective Tissue Research, 2003, 44, 312-317.	2.3	17
239	From hurdle to springboard: The macrophage as target in biomaterial-based bone regeneration strategies. Bone, 2022, 159, 116389.	2.9	17
240	Isolation, Differentiation, and Characterisation of Skeletal Stem Cells from Human Bone Marrow In Vitro and In Vivo. Methods in Molecular Biology, 2012, 816, 83-99.	0.9	16
241	Application of 3D-printed patient-specific skeletal implants augmented with autologous skeletal stem cells. Regenerative Medicine, 2018, 13, 283-294.	1.7	16
242	Isolation, Differentiation, and Characterization of Human Bone Marrow Stem Cells In Vitro and In Vivo. Methods in Molecular Biology, 2019, 1914, 53-70.	0.9	16
243	3D human bone marrow stromal and endothelial cell spheres promote bone healing in an osteogenic niche. FASEB Journal, 2019, 33, 3279-3290.	0.5	16
244	Human bone marrow osteoprogenitors express estrogen receptorâ€alpha and bone morphogenetic proteins 2 and 4 mRNA during osteoblastic differentiation. Journal of Cellular Biochemistry, 1999, 75, 382-392.	2.6	16
245	Human Fibroblast and Human Bone Marrow Cell Response to Lithographically Nanopatterned Adhesive Domains on Protein Rejecting Substrates. IEEE Transactions on Nanobioscience, 2007, 6, 201-209.	3.3	15
246	Inhibition of Hydroxyapatite Nanoparticleâ€Induced Osteogenic Activity in Skeletal Cells by Adsorption of Serum Proteins. Small, 2010, 6, 1986-1991.	10.0	15
247	Perfusion bioreactor studies of chondrocyte growth in alginateâ€"chitosan capsules. Biotechnology and Applied Biochemistry, 2012, 59, 142-152.	3.1	15
248	Variability in reference point microindentation and recommendations for testing cortical bone: Maximum load, sample orientation, mode of use, sample preparation and measurement spacing. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 42, 311-324.	3.1	15
249	Transient Canonical Wnt Stimulation Enriches Human Bone Marrow Mononuclear Cell Isolates for Osteoprogenitors. Stem Cells, 2016, 34, 418-430.	3.2	15
250	Polymersome nanoparticles for delivery of Wnt-activating small molecules. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 1267-1277.	3.3	15
251	Human Skeletal Stem Cell Response to Multiscale Topography Induced by Large Area Electron Beam Irradiation Surface Treatment. Frontiers in Bioengineering and Biotechnology, 2018, 6, 91.	4.1	15
252	Combinatorial delivery of bioactive molecules by a nanoparticle-decorated and functionalized biodegradable scaffold. Journal of Materials Chemistry B, 2018, 6, 4437-4445.	5.8	15

#	Article	IF	Citations
253	Harnessing Human Decellularized Blood Vessel Matrices and Cellular Construct Implants to Promote Bone Healing in an Ex Vivo Organotypic Bone Defect Model. Advanced Healthcare Materials, 2019, 8, e1800088.	7.6	15
254	Live-imaging of Bioengineered Cartilage Tissue using Multimodal Non-linear Molecular Imaging. Scientific Reports, 2019, 9, 5561.	3.3	15
255	Exploratory Full-Field Strain Analysis of Regenerated Bone Tissue from Osteoinductive Biomaterials. Materials, 2020, 13, 168.	2.9	15
256	Vitamin A effects on UMR 106 osteosarcoma cells are not mediated by specific cytosolic receptors. Biochemical Journal, 1985, 232, 599-603.	3.7	14
257	Adipocyte differentiation induced using nonspecific siRNA controls in cultured human mesenchymal stem cells. Rna, 2007, 13, 1179-1183.	3.5	14
258	From bench to clinic and back: skeletal stem cells and impaction bone grafting for regeneration of bone defects. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 779-786.	2.7	14
259	Tantalum trabecular metal - addition of human skeletal cells to enhance bone implant interface strength and clinical application. Journal of Tissue Engineering and Regenerative Medicine, 2014, 8, 304-313.	2.7	14
260	The scale-up of a tissue engineered porous hydroxyapatite polymer composite scaffold for use in bone repair: An ovine femoral condyle defect study. Journal of Biomedical Materials Research - Part A, 2015, 103, 1346-1356.	4.0	14
261	The Potential of microRNAs for Stem Cell-based Therapy for Degenerative Skeletal Diseases. Current Molecular Biology Reports, 2017, 3, 263-275.	1.6	14
262	The inferomedial femoral neck is compromised by age but not disease: Fracture toughness and the multifactorial mechanisms comprising reference point microindentation. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 399-412.	3.1	14
263	Bcl-2-associated athanogene-1 (BAG-1): A transcriptional regulator mediating chondrocyte survival and differentiation during endochondral ossification. Bone, 2008, 42, 113-128.	2.9	13
264	Tissue engineering strategies in spinal arthrodesis: the clinical imperative and challenges to clinical translation. Regenerative Medicine, 2013, 8, 49-64.	1.7	13
265	Remodelling of human bone on the chorioallantoic membrane of the chicken egg:<i>De novo</i>bone formation and resorption. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, 1877-1890.	2.7	13
266	Osteoblast Lineage. Advances in Organ Biology, 1998, , 475-498.	0.1	12
267	Identification of candidate regulators of multipotency in human skeletal progenitor cells. Biochemical and Biophysical Research Communications, 2008, 377, 68-72.	2.1	12
268	Effects of hypoxia on anabolic and catabolic gene expression and DNA methylation in OA chondrocytes. BMC Musculoskeletal Disorders, 2014, 15, 431.	1.9	12
269	The Effects of 1Î±, 25-dihydroxyvitamin D3 and Transforming Growth Factor-Î²3 on Bone Development in an Ex Vivo Organotypic Culture System of Embryonic Chick Femora. PLoS ONE, 2015, 10, e0121653.	2.5	12
270	Regionally-derived cell populations and skeletal stem cells from human foetal femora exhibit specific osteochondral and multi-lineage differentiation capacity in vitro and ex vivo. Stem Cell Research and Therapy, 2015, 6, 251.	5.5	11

#	Article	IF	Citations
271	Repositioning Titanium: An In Vitro Evaluation of Laser-Generated Microporous, Microrough Titanium Templates As a Potential Bridging Interface for Enhanced Osseointegration and Durability of Implants. Frontiers in Bioengineering and Biotechnology, 2017, 5, 77.	4.1	11
272	Regenerative medicine in lower limb reconstruction. Regenerative Medicine, 2018, 13, 477-490.	1.7	11
273	Isolation and Enrichment of Stro-1 Immunoselected Mesenchymal Stem Cells from Adult Human Bone Marrow. Methods in Molecular Biology, 2013, 1035, 67-73.	0.9	11
274	Maternal High-Fat Diet and Offspring Expression Levels of Vitamin Kâ€"Dependent Proteins. Endocrinology, 2014, 155, 4749-4761.	2.8	10
275	Quantifying intracortical bone microstructure: A critical appraisal of 2D and 3D approaches for assessing vascular canals and osteocyte lacunae. Journal of Anatomy, 2021, 238, 653-668.	1.5	10
276	Chondrobags: A high throughput alginate-fibronectin micromass platform for in vitro human cartilage formation. Biofabrication, 2020, 12, 045034.	7.1	10
277	Effects of Retinol on Activation of Latent Transforming Growth Factor-Â by Isolated Osteoclasts. Endocrinology, 1997, 138, 657-666.	2.8	10
278	Biomimetic Collagen Scaffolds for Human Bone Cell Growth and Differentiation. Tissue Engineering, 2004, 10, 1148-1159.	4.6	10
279	A non-invasive method for in situ quantification of subpopulation behaviour in mixed cell culture. Journal of the Royal Society Interface, 2006, 3, 63-69.	3.4	9
280	Taking tissue engineering principles into theatre: retrieval analysis from a clinically translated case. Regenerative Medicine, 2011, 6, 461-467.	1.7	9
281	The role of osteoblast cells in the pathogenesis of unicameral bone cysts. Journal of Children's Orthopaedics, 2012, 6, 339-346.	1.1	9
282	An analysis of polymer type and chain length for use as a biological composite graft extender in impaction bone grafting: A mechanical and biocompatibility study. Journal of Biomedical Materials Research - Part A, 2012, 100A, 3211-3219.	4.0	9
283	Extracellular Matrix Deposition in Engineered Micromass Cartilage Pellet Cultures: Measurements and Modelling. PLoS ONE, 2016, 11, e0147302.	2.5	9
284	The influence of a high fat diet on bone and soft tissue formation in Matrix Gla Protein knockout mice. Scientific Reports, 2018, 8, 3635.	3.3	9
285	Raman spectroscopy links differentiating osteoblast matrix signatures to pro-angiogenic potential. Matrix Biology Plus, 2020, 5, 100018.	3.5	9
286	Modeling adult skeletal stem cell response to laser-machined topographies through deep learning. Tissue and Cell, 2020, 67, 101442.	2.2	9
287	Bone tissue engineering and bone regeneration. , 2020, , 917-935.		9
288	Enrichment of Skeletal Stem Cells from Human Bone Marrow Using Spherical Nucleic Acids. ACS Nano, 2021, 15, 6909-6916.	14.6	9

#	Article	IF	Citations
289	Assays for bone resorption and bone formation. Methods in Enzymology, 1991, 198, 502-510.	1.0	8
290	Effect of vitamin D deficiency during pregnancy on offspring bone structure, composition and quality in later life. Journal of Developmental Origins of Health and Disease, 2013, 4, 49-55.	1.4	8
291	Episomal plasmid-based generation of induced pluripotent stem cells from fetal femur-derived human mesenchymal stromal cells. Stem Cell Research, 2016, 16, 128-132.	0.7	8
292	Mesenchymal Stem Cells: Potential Role in the Treatment of Osteochondral Lesions of the Ankle. Biotechnology Journal, 2017, 12, 1700070.	3.5	8
293	Periconception maternal low-protein diet adversely affects male mouse fetal bone growth and mineral density quality in late gestation. Journal of Developmental Origins of Health and Disease, 2021, 12, 384-395.	1.4	8
294	Skeletal Regeneration: application of nanotopography and biomaterials for skeletal stem cell based bone repair. Inflammation and Regeneration, 2012, 32, 072-089.	3.7	8
295	Effects of interferon alpha on human osteoprogenitor cell growth and differentiation in vitro. Journal of Cellular Biochemistry, 1999, 74, 372-385.	2.6	8
296	Osteogenic stem-cell characterization and development: potentials for cytotherapy. Cytotherapy, 2001, 3, 413-416.	0.7	7
297	The Role of Vibration and Drainage in Femoral Impaction Bone Grafting. Journal of Arthroplasty, 2008, 23, 1157-1164.	3.1	7
298	Cartilage and Bone Regeneration. , 2015, , 529-582.		7
299	Quantitative temporal interrogation in 3D of bioengineered human cartilage using multimodal label-free imaging. Integrative Biology (United Kingdom), 2018, 10, 635-645.	1.3	7
300	Maternal High Fat Diet Affects Offspringâ€™s Vitamin K-Dependent Proteins Expression Levels. PLoS ONE, 2015, 10, e0138730.	2.5	6
301	Angiogenic Potential of Human Neonatal Foreskin Stromal Cells in the Chick Embryo Chorioallantoic Membrane Model. Stem Cells International, 2015, 2015, 1-11.	2.5	6
302	Regulation of osteoblast development by Bcl-2-associated athanogene-1 (BAG-1). Scientific Reports, 2016, 6, 33504.	3.3	6
303	Osteonecrosis following treatment for childhood acute lymphoblastic leukaemia: The Southampton Childrenâ€™s Hospital experience. Journal of Children's Orthopaedics, 2017, 11, 440-447.	1.1	6
304	Spina bifida-predisposing heterozygous mutations in Planar Cell Polarity genes and Zic2 reduce bone mass in young mice. Scientific Reports, 2018, 8, 3325.	3.3	5
305	Sex- and bone-specific responses in bone structure to exogenous leptin and leptin receptor antagonism in the ovine fetus. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2018, 314, R781-R790.	1.8	5
306	Osteoarthritis treatment with a novel nutraceutical acetylated ligstroside aglycone, a chemically modified extra-virgin olive oil polyphenol. Journal of Tissue Engineering, 2020, 11, 204173142092270.	5.5	5

#	Article	IF	Citations
307	Derivation of a novel undifferentiated human foetal phenotype in serumâ€free cultures with BMPâ€2. Journal of Cellular and Molecular Medicine, 2009, 13, 3541-3555.	3.6	4
308	Translational hurdles for tissue engineering. Journal of Bone and Joint Surgery: British Volume, 2012, 94-B, 848-855.	3.4	4
309	Impact of inflammation on the osteoarthritic niche: implications for regenerative medicine. Regenerative Medicine, 2012, 7, 551-570.	1.7	4
310	Closed-loop corrective beam shaping for laser processing of curved surfaces. Journal of Micromechanics and Microengineering, 2018, 28, 127001.	2.6	4
311	Correlative fluorescence and atomic force microscopy to advance the bio-physical characterisation of co-culture of living cells. Biochemical and Biophysical Research Communications, 2020, 529, 392-397.	2.1	4
312	From mathematical modeling and machine learning to clinical reality. , 2020, , 37-51.		4
313	Multiscale molecular profiling of pathological bone resolves sexually dimorphic control of extracellular matrix composition. DMM Disease Models and Mechanisms, 2021, 14, .	2.4	4
314	Synthesis of scaffold-free, three dimensional, osteogenic constructs following culture of skeletal osteoprogenitor cells on glass surfaces. Bone Reports, 2021, 15, 101143.	0.4	4
315	Nanocomposite Clay-Based Bioinks for Skeletal Tissue Engineering. Methods in Molecular Biology, 2021, 2147, 63-72.	0.9	4
316	Protein Expression of STRO-1 Cells in Response to Different Topographic Features. Journal of Tissue Engineering, 2011, 2011, 534603.	5.5	3
317	Epigenetic Aspects of Chronic Diseases. , 2011, , .		3
318	The osteoarthritic niche and modulation of skeletal stem cell function for regenerative medicine. Journal of Tissue Engineering and Regenerative Medicine, 2013, 7, 589-608.	2.7	3
319	Effects of Setting Bone Cement on Tissue-Engineered Bone Graft. Journal of Bone and Joint Surgery - Series A, 2013, 95, 736-743.	3.0	3
320	Local Variation in Femoral Neck Cortical Bone: In Vitro Measured Bone Mineral Density, Geometry and Mechanical Properties. Journal of Clinical Densitometry, 2017, 20, 205-215.	1.2	3
321	Short-Term Evaluation of Cellular Fate in an Ovine Bone Formation Model. Cells, 2021, 10, 1776.	4.1	3
322	Cell-controlled dynamic surfaces for skeletal stem cell growth and differentiation. Scientific Reports, 2022, 12, 8165.	3.3	3
323	Bone-Marrow-Derived Mesenchymal Stromal Cells: From Basic Biology to Applications in Bone Tissue Engineering and Bone Regeneration. , 2020, , 139-192.		2
324	Custom 3D-Printed Triflange Implants for Treatment of Severe Acetabular Defects, with and without Pelvic Discontinuity. JBJS Open Access, 2021, 6, .	1.5	2

#	Article	IF	Citations
325	Development of materials for regenerative medicine: from clinical need to clinical application. , 2013, , 155-176.		1
326	Effects of retinoids on malignant cells of the osteoblast lineage. Biochemical Society Transactions, 1986, 14, 947-948.	3.4	1
327	Clay Hydrogels: Clay Gels For the Delivery of Regenerative Microenvironments (Adv. Mater. 29/2011). Advanced Materials, 2011, 23, 3303-3303.	21.0	1
328	Centre for Human Development, Stem Cells & Regeneration. Regenerative Medicine, 2014, 9, 563-567.	1.7	1
329	Skeletal Stem Cell Niche of the Bone Marrow. Pancreatic Islet Biology, 2015, , 245-279.	0.3	1
330	Microscale Approaches for Molecular Regulation of Skeletal Development. , 2016, , 167-193.		1
331	Skeletal Stem Cells and Controlled Nanotopography. , 2011, , 247-258.		1
332	Endothelial Cells: Co-culture Spheroids. Methods in Molecular Biology, 2021, 2206, 47-56.	0.9	1
333	Pancreas deficiency modifies bone development in the ovine fetus near term. Journal of Endocrinology, 2021, 252, 71-80.	2.6	1
334	Acid phosphatase activity is stimulated in isolated osteoclasts by vitamin A. Bollettino Della SocietÃ Italiana Di Biologia Sperimentale, 1986, 62, 1311-4.	0.0	1
335	The developmental environment: experimental perspectives on skeletal development. , 2006, , 406-414.		0
336	Osteogenesis on Surface Selective Laser Sintered Bioresorbable Scaffolds. IFMBE Proceedings, 2008, , 12-15.	0.3	0
337	Prenatal and Nutritional Influences on Skeletal Development: Lessons from Animal Studies. Clinical Reviews in Bone and Mineral Metabolism, 2010, 8, 40-48.	0.8	0
338	From Mathematical Models to Clinical Reality. , 2014, , 25-39.		0
339	Altered vertebral and femoral bone structure in juvenile offspring of microswine subject to maternal low protein nutritional challenge. Physiological Reports, 2019, 7, e14081.	1.7	0
340	Skeletal Stem Cellsâ€"Phenotype and Function. , 2020, , 9-20.		0
341	Strategies to Promote Chondrogenesis and Osteogenesis from Human Bone Marrow Cells and Articular Chondrocytes Encapsulated in Polysaccharide Templates. Tissue Engineering, 2006, .	4.6	0
342	Osteogenic Progenitor Cells of Bone. , 2008, , 2091-2101.		0

#	Article	IF	Citations
343	Mesenchymal Stem Cells and Controlled Nanotopography. , 2008, , .		0
344	Variable Pattern Projection via a Spatial Light Modulator for Laser Machining on Curved Surfaces. , 2018, , .		0
345	Bone-Marrow-Derived Mesenchymal Stromal Cells: From Basic Biology to Applications in Bone Tissue Engineering and Bone Regeneration. , 2020, , 1-55.		0