

# Richard O C Oreffo

## List of Publications by Year in descending order

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345  
papers

24,640  
citations

7087

78  
h-index

10152

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. <i>Nature Materials</i> , 2007, 6, 997-1003.	13.3	2,177
2	Harnessing nanotopography and integrin-matrix interactions to influence stem cell fate. <i>Nature Materials</i> , 2014, 13, 558-569.	13.3	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.. <i>Journal of Clinical Investigation</i> , 1990, 85, 632-639.	3.9	727
5	Nanoscale surfaces for the long-term maintenance of mesenchymal stem cell phenotype and multipotency. <i>Nature Materials</i> , 2011, 10, 637-644.	13.3	710
6	Bone Tissue Engineering: Hope vs Hype. <i>Biochemical and Biophysical Research Communications</i> , 2002, 292, 1-7.	1.0	490
7	Biofabrication of bone tissue: approaches, challenges and translation for bone regeneration. <i>Biomaterials</i> , 2016, 83, 363-382.	5.7	483
8	Hypoxia inducible factors regulate pluripotency and proliferation in human embryonic stem cells cultured at reduced oxygen tensions. <i>Reproduction</i> , 2010, 139, 85-97.	1.1	342
9	Quality of Life in Sarcopenia and Frailty. <i>Calcified Tissue International</i> , 2013, 93, 101-120.	1.5	310
10	Osteoprogenitor response to semi-ordered and random nanotopographies. <i>Biomaterials</i> , 2006, 27, 2980-2987.	5.7	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. <i>Arthritis and Rheumatism</i> , 2005, 52, 3110-3124.	6.7	307
12	Osteoprogenitor response to defined topographies with nanoscale depths. <i>Biomaterials</i> , 2006, 27, 1306-1315.	5.7	297
13	Activation of the bone-derived latent TGF beta complex by isolated osteoclasts. <i>Biochemical and Biophysical Research Communications</i> , 1989, 158, 817-823.	1.0	276
14	Nanotopographical Control of Stem Cell Differentiation. <i>Journal of Tissue Engineering</i> , 2010, 1, 120623.	2.3	276
15	Clay: New Opportunities for Tissue Regeneration and Biomaterial Design. <i>Advanced Materials</i> , 2013, 25, 4069-4086.	11.1	271
16	Human osteoprogenitor growth and differentiation on synthetic biodegradable structures after surface modification. <i>Bone</i> , 2001, 29, 523-531.	1.4	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. <i>Biomaterials</i> , 2009, 30, 5094-5103.	5.7	248
18	Fabrication of pillar-like titania nanostructures on titanium and their interactions with human skeletal stem cells. <i>Acta Biomaterialia</i> , 2009, 5, 1433-1441.	4.1	246

#	ARTICLE	IF	CITATIONS
19	Development of a clay based bioink for 3D cell printing for skeletal application. <i>Biofabrication</i> , 2017, 9, 034103.	3.7	238
20	The effect of the delivery of vascular endothelial growth factor and bone morphogenic protein-2 to osteoprogenitor cell populations on bone formation. <i>Biomaterials</i> , 2010, 31, 1242-1250.	5.7	214
21	The potential of biomimesis in bone tissue engineering: lessons from the design and synthesis of invertebrate skeletons. <i>Bone</i> , 2002, 30, 810-815.	1.4	211
22	Epithelial mechanobiology, skin wound healing, and the stem cell niche. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 28, 397-409.	1.5	209
23	The effect of anisotropic architecture on cell and tissue infiltration into tissue engineering scaffolds. <i>Biomaterials</i> , 2006, 27, 5909-5917.	5.7	201
24	Clay nanoparticles for regenerative medicine and biomaterial design: A review of clay bioactivity. <i>Biomaterials</i> , 2018, 159, 204-214.	5.7	201
25	Bone Tissue Engineering. <i>Current Molecular Biology Reports</i> , 2015, 1, 132-140.	0.8	193
26	Mesenchymal Stem Cells: Lineage, Plasticity, and Skeletal Therapeutic Potential. <i>Stem Cell Reviews and Reports</i> , 2005, 1, 169-178.	5.6	182
27	Biomimetic Collagen Scaffolds for Human Bone Cell Growth and Differentiation. <i>Tissue Engineering</i> , 2004, 10, 1148-1159.	4.9	179
28	Interconversion potential of cloned human marrow adipocytes in vitro. <i>Bone</i> , 1999, 24, 549-554.	1.4	172
29	Bone and metal: An orthopaedic perspective on osseointegration of metals. <i>Acta Biomaterialia</i> , 2014, 10, 4043-4057.	4.1	172
30	The cell in the ink: Improving biofabrication by printing stem cells for skeletal regenerative medicine. <i>Biomaterials</i> , 2019, 209, 10-24.	5.7	169
31	Bridging the regeneration gap: Stem cells, biomaterials and clinical translation in bone tissue engineering. <i>Archives of Biochemistry and Biophysics</i> , 2008, 473, 124-131.	1.4	161
32	Adenoviral BMP-2 Gene Transfer in Mesenchymal Stem Cells: In Vitro and in Vivo Bone Formation on Biodegradable Polymer Scaffolds. <i>Biochemical and Biophysical Research Communications</i> , 2002, 292, 144-152.	1.0	160
33	Interactions with nanoscale topography: Adhesion quantification and signal transduction in cells of osteogenic and multipotent lineage. <i>Journal of Biomedical Materials Research - Part A</i> , 2009, 91A, 195-208.	2.1	160
34	Temporal Analysis of Rat Growth Plates: Cessation of Growth with Age Despite Presence of a Physis. <i>Journal of Histochemistry and Cytochemistry</i> , 2003, 51, 373-383.	1.3	156
35	Adhesion formation of primary human osteoblasts and the functional response of mesenchymal stem cells to 330nm deep microgrooves. <i>Journal of the Royal Society Interface</i> , 2008, 5, 1231-1242.	1.5	156
36	Future potentials for using osteogenic stem cells and biomaterials in orthopedics. <i>Bone</i> , 1999, 25, 5S-9S.	1.4	155

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37	Skeletal Progenitor Cells and Ageing Human Populations. <i>Clinical Science</i> , 1998, 94, 549-555.	1.8	150
38	Induction of Human Osteoprogenitor Chemotaxis, Proliferation, Differentiation, and Bone Formation by Osteoblast Stimulating Factor-1/Pleiotrophin: Osteoconductive Biomimetic Scaffolds for Tissue Engineering. <i>Journal of Bone and Mineral Research</i> , 2003, 18, 47-57.	3.1	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. <i>Advanced Materials</i> , 2011, 23, 3304-3308.	11.1	147
41	DNA demethylation at specific CpG sites in the <i>IL1B</i> promoter in response to inflammatory cytokines in human articular chondrocytes. <i>Arthritis and Rheumatism</i> , 2009, 60, 3303-3313.	6.7	146
42	Osteogenic and angiogenic tissue formation in high fidelity nanocomposite Laponite-gelatin bioinks. <i>Biofabrication</i> , 2019, 11, 035027.	3.7	142
43	Computational modelling of cell spreading and tissue regeneration in porous scaffolds. <i>Biomaterials</i> , 2007, 28, 1926-1940.	5.7	140
44	The effect of mesenchymal populations and vascular endothelial growth factor delivered from biodegradable polymer scaffolds on bone formation. <i>Biomaterials</i> , 2008, 29, 1892-1900.	5.7	138
45	Regulated Transcription of Human Matrix Metalloproteinase 13 (MMP13) and Interleukin-1 $\beta$ (IL1B) Genes in Chondrocytes Depends on Methylation of Specific Proximal Promoter CpG Sites. <i>Journal of Biological Chemistry</i> , 2013, 288, 10061-10072.	1.6	133
46	Natural Marine Sponge Fiber Skeleton: A Biomimetic Scaffold for Human Osteoprogenitor Cell Attachment, Growth, and Differentiation. <i>Tissue Engineering</i> , 2003, 9, 1159-1166.	4.9	130
47	Experimental characterization and computational modelling of two-dimensional cell spreading for skeletal regeneration. <i>Journal of the Royal Society Interface</i> , 2007, 4, 1107-1117.	1.5	123
48	Latent Forms of Transforming Growth Factor- $\beta$ (TGF $\beta$ ) Derived from Bone Cultures: Identification of a Naturally Occurring 100-kDa Complex with Similarity to Recombinant Latent TGF $\beta$ . <i>Molecular Endocrinology</i> , 1991, 5, 741-751.	3.7	121
49	A review of hydrogel use in fracture healing and bone regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, 187-198.	1.3	121
50	Controlled Differentiation of Human Bone Marrow Stromal Cells Using Magnetic Nanoparticle Technology. <i>Tissue Engineering - Part A</i> , 2010, 16, 3241-3250.	1.6	117
51	Using Nanotopography and Metabolomics to Identify Biochemical Effectors of Multipotency. <i>ACS Nano</i> , 2012, 6, 10239-10249.	7.3	114
52	Nanotopographical Control of Human Osteoprogenitor Differentiation. <i>Current Stem Cell Research and Therapy</i> , 2007, 2, 129-138.	0.6	112
53	Skeletal stem cell physiology on functionally distinct titania nanotopographies. <i>Biomaterials</i> , 2011, 32, 7403-7410.	5.7	112
54	Growth and differentiation of human bone marrow osteoprogenitors on novel calcium phosphate cements. <i>Biomaterials</i> , 1998, 19, 1845-1854.	5.7	109

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55	Human Osteoprogenitor Bone Formation Using Encapsulated Bone Morphogenetic Protein 2 in Porous Polymer Scaffolds. <i>Tissue Engineering</i> , 2004, 10, 1037-1045.	4.9	109
56	Concise Review: Bridging the Gap: Bone Regeneration Using Skeletal Stem Cell-Based Strategies—Where Are We Now?. <i>Stem Cells</i> , 2014, 32, 35-44.	1.4	109
57	Tissue engineering strategies for cartilage generation—Micromass and three dimensional cultures using human chondrocytes and a continuous cell line. <i>Biochemical and Biophysical Research Communications</i> , 2005, 333, 609-621.	1.0	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. <i>Tissue Engineering</i> , 2004, 10, 295-307.	4.9	102
60	The epigenetic effect of glucosamine and a nuclear factor-kappa B (NF- $\kappa$ B) inhibitor on primary human chondrocytes — Implications for osteoarthritis. <i>Biochemical and Biophysical Research Communications</i> , 2011, 405, 362-367.	1.0	102
61	Development of specific collagen scaffolds to support the osteogenic and chondrogenic differentiation of human bone marrow stromal cells. <i>Biomaterials</i> , 2008, 29, 3105-3116.	5.7	100
62	Nanotopographical Effects on Mesenchymal Stem Cell Morphology and Phenotype. <i>Journal of Cellular Biochemistry</i> , 2014, 115, 380-390.	1.2	100
63	Patients with Primary Osteoarthritis Show No Change with Ageing in the Number of Osteogenic Precursors. <i>Scandinavian Journal of Rheumatology</i> , 1998, 27, 415-424.	0.6	98
64	Intrauterine Exposure to a Maternal Low Protein Diet Reduces Adult Bone Mass and Alters Growth Plate Morphology in Rats. <i>Calcified Tissue International</i> , 2002, 71, 493-498.	1.5	98
65	Delivery systems for bone growth factors — the new players in skeletal regeneration. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 56, 415-427.	1.2	97
66	Bridging the gap. <i>Nature</i> , 2005, 433, 19-19.	13.7	96
67	Versatile Biocompatible Polymer Hydrogels: Scaffolds for Cell Growth. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 978-982.	7.2	93
68	Dynamic Surfaces for the Study of Mesenchymal Stem Cell Growth through Adhesion Regulation. <i>ACS Nano</i> , 2016, 10, 6667-6679.	7.3	93
69	Characterization and Multipotentiality of Human Fetal Femur-Derived Cells: Implications for Skeletal Tissue Regeneration. <i>Stem Cells</i> , 2006, 24, 1042-1053.	1.4	92
70	Effect of vitamin a on bone resorption: Evidence for direct stimulation of isolated chicken osteoclasts by retinol and retinoic acid. <i>Journal of Bone and Mineral Research</i> , 1988, 3, 203-210.	3.1	92
71	Human iPSC-derived MSCs (iMSCs) from aged individuals acquire a rejuvenation signature. <i>Stem Cell Research and Therapy</i> , 2019, 10, 100.	2.4	90
72	Immunoselection and adenoviral genetic modulation of human osteoprogenitors: in vivo bone formation on PLA scaffold. <i>Biochemical and Biophysical Research Communications</i> , 2002, 299, 208-215.	1.0	88

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73	Genomic expression of mesenchymal stem cells to altered nanoscale topographies. <i>Journal of the Royal Society Interface</i> , 2008, 5, 1055-1065.	1.5	88
74	Whole proteome analysis of osteoprogenitor differentiation induced by disordered nanotopography and mediated by ERK signalling. <i>Biomaterials</i> , 2009, 30, 4723-4731.	5.7	86
75	Effects of TGF $\beta$ 2 and BFGF on the differentiation of human bone marrow stromal fibroblasts. <i>Cell Biology International</i> , 1999, 23, 185-194.	1.4	85
76	Biomaterialized Polysaccharide Capsules for Encapsulation, Organization, and Delivery of Human Cell Types and Growth Factors. <i>Advanced Functional Materials</i> , 2005, 15, 917-923.	7.8	85
77	Supercritical carbon dioxide generated vascular endothelial growth factor encapsulated poly(DL-lactic acid) scaffolds induce angiogenesis in vitro. <i>Biochemical and Biophysical Research Communications</i> , 2007, 352, 135-141.	1.0	84
78	Nanotopographical Cues Augment Mesenchymal Differentiation of Human Embryonic Stem Cells. <i>Small</i> , 2013, 9, 2140-2151.	5.2	84
79	Embryonic and Induced Pluripotent Stem Cells: Understanding, Creating, and Exploiting the Nano-Niche for Regenerative Medicine. <i>ACS Nano</i> , 2013, 7, 1867-1881.	7.3	84
80	Loss of methylation in CpG sites in the NF $\kappa$ B enhancer elements of inducible nitric oxide synthase is responsible for gene induction in human articular chondrocytes. <i>Arthritis and Rheumatism</i> , 2013, 65, 732-742.	6.7	84
81	Stochasticity and the Molecular Mechanisms of Induced Pluripotency. <i>PLoS ONE</i> , 2008, 3, e3086.	1.1	81
82	Bone-like Resorbable Silk-based Scaffolds for Load-bearing Osteoregenerative Applications. <i>Advanced Materials</i> , 2009, 21, 75-78.	11.1	81
83	The chorioallantoic membrane (CAM) assay for the study of human bone regeneration: a refinement animal model for tissue engineering. <i>Scientific Reports</i> , 2016, 6, 32168.	1.6	81
84	Application of an acoustofluidic perfusion bioreactor for cartilage tissue engineering. <i>Lab on A Chip</i> , 2014, 14, 4475-4485.	3.1	79
85	Human Osteoprogenitor Bone Formation Using Encapsulated Bone Morphogenetic Protein 2 in Porous Polymer Scaffolds. <i>Tissue Engineering</i> , 2004, 10, 1037-1045.	4.9	78
86	Pleiotrophin/Osteoblast-Stimulating Factor 1: Dissecting Its Diverse Functions in Bone Formation. <i>Journal of Bone and Mineral Research</i> , 2002, 17, 2009-2020.	3.1	77
87	Evaluation of human bone marrow stromal cell growth on biodegradable polymer/Bioglass $\text{\textcircled{R}}$ composites. <i>Biochemical and Biophysical Research Communications</i> , 2006, 342, 1098-1107.	1.0	76
88	Epigenetic regulation of interleukin-8, an inflammatory chemokine, in osteoarthritis. <i>Osteoarthritis and Cartilage</i> , 2015, 23, 1946-1954.	0.6	75
89	Bone induction at physiological doses of BMP through localization by clay nanoparticle gels. <i>Biomaterials</i> , 2016, 99, 16-23.	5.7	73
90	Nanoclay-based 3D printed scaffolds promote vascular ingrowth ex vivo and generate bone mineral tissue in vitro and in vivo. <i>Biofabrication</i> , 2020, 12, 035010.	3.7	73

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91	Strategies for cell manipulation and skeletal tissue engineering using high-throughput polymer blend formulation and microarray techniques. <i>Biomaterials</i> , 2010, 31, 2216-2228.	5.7	71
92	Absence of the lysophosphatidic acid receptor LPA1 results in abnormal bone development and decreased bone mass. <i>Bone</i> , 2011, 49, 395-403.	1.4	71
93	Association of Reduced Type IX Collagen Gene Expression in Human Osteoarthritic Chondrocytes With Epigenetic Silencing by DNA Hypermethylation. <i>Arthritis and Rheumatology</i> , 2014, 66, 3040-3051.	2.9	71
94	MagicWand: A Single, Designed Peptide That Assembles to Stable, Ordered $\alpha$ -Helical Fibers. <i>Biochemistry</i> , 2008, 47, 10365-10371.	1.2	68
95	Biocompatibility and osteogenic potential of human fetal femur-derived cells on surface selective laser sintered scaffolds. <i>Acta Biomaterialia</i> , 2009, 5, 2063-2071.	4.1	68
96	Inhibition of bone resorption by inorganic phosphate is mediated by both reduced osteoclast formation and decreased activity of mature osteoclasts. <i>Journal of Bone and Mineral Research</i> , 1991, 6, 473-478.	3.1	68
97	Characterization of New PEEK/HA Composites with 3D HA Network Fabricated by Extrusion Freeforming. <i>Molecules</i> , 2016, 21, 687.	1.7	68
98	Hope versus hype: what can additive manufacturing realistically offer trauma and orthopedic surgery?. <i>Regenerative Medicine</i> , 2014, 9, 535-549.	0.8	67
99	In Vivo Assessment of Bone Regeneration in Alginate/Bone ECM Hydrogels with Incorporated Skeletal Stem Cells and Single Growth Factors. <i>PLoS ONE</i> , 2015, 10, e0145080.	1.1	67
100	Maternal protein deficiency affects mesenchymal stem cell activity in the developing offspring. <i>Bone</i> , 2003, 33, 100-107.	1.4	65
101	Alternative and complementary therapies in osteoarthritis and cartilage repair. <i>Aging Clinical and Experimental Research</i> , 2020, 32, 547-560.	1.4	65
102	Growth Factor Free Multicomponent Nanocomposite Hydrogels That Stimulate Bone Formation. <i>Advanced Functional Materials</i> , 2020, 30, 1906205.	7.8	65
103	Skeletal stem cells: Phenotype, biology and environmental niches informing tissue regeneration. <i>Molecular and Cellular Endocrinology</i> , 2008, 288, 11-21.	1.6	64
104	Inhibitory Effects of the Bone-Derived Growth Factors Osteoinductive Factor and Transforming Growth Factor- $\beta$ 2 on Isolated Osteoclasts*. <i>Endocrinology</i> , 1990, 126, 3069-3075.	1.4	62
105	Suppressors of cytokine signalling (SOCS) are reduced in osteoarthritis. <i>Biochemical and Biophysical Research Communications</i> , 2011, 407, 54-59.	1.0	61
106	Expression of estrogen receptor-alpha in cells of the osteoclastic lineage. <i>Histochemistry and Cell Biology</i> , 1999, 111, 125-133.	0.8	59
107	Genetic manipulation of human mesenchymal progenitors to promote chondrogenesis using $\alpha$ -bead-in-bead $\beta$ -polysaccharide capsules. <i>Biomaterials</i> , 2008, 29, 58-65.	5.7	59
108	Development of in vivo $\beta$ -CT evaluation of neovascularisation in tissue engineered bone constructs. <i>Bone</i> , 2008, 43, 195-202.	1.4	59



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109	A genomics approach in determining nanotopographical effects on MSC phenotype. <i>Biomaterials</i> , 2013, 34, 2177-2184.	5.7	59
110	Bisphosphonate nanoclay edge-site interactions facilitate hydrogel self-assembly and sustained growth factor localization. <i>Nature Communications</i> , 2020, 11, 1365.	5.8	59
111	Osteogenic lineage restriction by osteoprogenitors cultured on nanometric grooved surfaces: The role of focal adhesion maturation. <i>Acta Biomaterialia</i> , 2014, 10, 651-660.	4.1	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. <i>Acta Biomaterialia</i> , 2014, 10, 4186-4196.	4.1	57
114	Modulation of osteogenesis and adipogenesis by human serum in human bone marrow cultures. <i>European Journal of Cell Biology</i> , 1997, 74, 251-61.	1.6	57
115	Osteoprogenitor response to low-adhesion nanotopographies originally fabricated by electron beam lithography. <i>Journal of Materials Science: Materials in Medicine</i> , 2007, 18, 1211-1218.	1.7	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. <i>Acta Biomaterialia</i> , 2014, 10, 4197-4205.	4.1	56
117	Printing bone in a gel: using nanocomposite bioink to print functionalised bone scaffolds. <i>Materials Today Bio</i> , 2019, 4, 100028.	2.6	56
118	A microarray approach to the identification of polyurethanes for the isolation of human skeletal progenitor cells and augmentation of skeletal cell growth. <i>Biomaterials</i> , 2009, 30, 1045-1055.	5.7	54
119	Intrauterine programming of bone. Part 2: Alteration of skeletal structure. <i>Osteoporosis International</i> , 2008, 19, 157-167.	1.3	53
120	Changes in the antiangiogenic properties of articular cartilage in osteoarthritis. <i>Journal of Orthopaedic Science</i> , 2003, 8, 849-857.	0.5	52
121	Strategies to Promote Chondrogenesis and Osteogenesis from Human Bone Marrow Cells and Articular Chondrocytes Encapsulated in Polysaccharide Templates. <i>Tissue Engineering</i> , 2006, 12, 2789-2799.	4.9	52
122	Gene therapy used for tissue engineering applicationsâ€. <i>Journal of Pharmacy and Pharmacology</i> , 2010, 59, 329-350.	1.2	51
123	DNA methylation of the RUNX2 P1 promoter mediates MMP13 transcription in chondrocytes. <i>Scientific Reports</i> , 2017, 7, 7771.	1.6	50
124	<sup />The Chorioallantoic Membrane Assay for Biomaterial Testing in Tissue Engineering: A Short-Term<i> In Vivo</i> Preclinical Model. <i>Tissue Engineering - Part C: Methods</i> , 2017, 23, 938-952.	1.1	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. <i>Tissue Engineering - Part B: Reviews</i> , 2011, 17, 307-320.	2.5	49



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127	Nanotopography controls cell cycle changes involved with skeletal stem cell self-renewal and multipotency. <i>Biomaterials</i> , 2017, 116, 10-20.	5.7	49
128	Effects of targeted overexpression of pleiotrophin on postnatal bone development. <i>Biochemical and Biophysical Research Communications</i> , 2002, 298, 324-332.	1.0	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. <i>Soft Matter</i> , 2006, 2, 732.	1.2	47
131	A comparison of polymer and polymer-hydroxyapatite composite tissue engineered scaffolds for use in bone regeneration. An <i>in vitro</i> and <i>in vivo</i> study. <i>Journal of Biomedical Materials Research - Part A</i> , 2014, 102, 2613-2624.	2.1	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. <i>Biomaterials</i> , 2007, 28, 5332-5343.	5.7	46
133	The interaction of human bone marrow cells with nanotopographical features in three dimensional constructs. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 79A, 431-439.	2.1	45
134	Mammalian cell survival and processing in supercritical CO <sub>2</sub> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 7426-7431.	3.3	45
135	Epigenetic modifiers influence lineage commitment of human bone marrow stromal cells: Differential effects of 5-aza-deoxycytidine and trichostatin A. <i>Differentiation</i> , 2011, 81, 35-41.	1.0	45
136	MicroRNA-146a Regulates Human Foetal Femur Derived Skeletal Stem Cell Differentiation by Down-Regulating SMAD2 and SMAD3. <i>PLoS ONE</i> , 2014, 9, e98063.	1.1	45
137	Label-free enrichment of primary human skeletal progenitor cells using deterministic lateral displacement. <i>Lab on A Chip</i> , 2019, 19, 513-523.	3.1	45
138	Stimulation of human bone marrow stromal cells using growth factor encapsulated calcium carbonate porous microspheres. <i>Journal of Materials Chemistry</i> , 2004, 14, 2206.	6.7	44
139	Fabrication of hydroxyapatite sponges by dextran sulphate/amino acid templating. <i>Biomaterials</i> , 2005, 26, 6652-6656.	5.7	44
140	Intrauterine programming of bone. Part 1: Alteration of the osteogenic environment. <i>Osteoporosis International</i> , 2008, 19, 147-156.	1.3	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. <i>Biomaterials</i> , 2008, 29, 3221-3227.	5.7	44
142	Prospective isolation of human bone marrow stromal cell subsets: A comparative study between Stro-1-, CD146- and CD105-enriched populations. <i>Journal of Tissue Engineering</i> , 2014, 5, 204173141455176.	2.3	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. <i>Journal of Endocrinology</i> , 1994, 143, R9-R16.	1.2	43
144	Phenotypic and Molecular Heterogeneity in Fibrodysplasia Ossificans Progressiva. <i>Calcified Tissue International</i> , 1999, 65, 250-255.	1.5	42

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145	Mechanical phenotyping of primary human skeletal stem cells in heterogeneous populations by real-time deformability cytometry. <i>Integrative Biology (United Kingdom)</i> , 2016, 8, 616-623.	0.6	42
146	Disordered protein-graphene oxide co-assembly and supramolecular biofabrication of functional fluidic devices. <i>Nature Communications</i> , 2020, 11, 1182.	5.8	42
147	An ex vivo model for chondrogenesis and osteogenesis. <i>Biomaterials</i> , 2007, 28, 2839-2849.	5.7	41
148	Raman spectroscopy and coherent anti-Stokes Raman scattering imaging: prospective tools for monitoring skeletal cells and skeletal regeneration. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160182.	1.5	41
149	Trapping single human osteoblast-like cells from a heterogeneous population using a dielectrophoretic microfluidic device. <i>Biomicrofluidics</i> , 2010, 4, .	1.2	40
150	MiR-146b is down-regulated during the chondrogenic differentiation of human bone marrow derived skeletal stem cells and up-regulated in osteoarthritis. <i>Scientific Reports</i> , 2017, 7, 46704.	1.6	40
151	Biological and mechanical enhancement of impacted allograft seeded with human bone marrow stromal cells: potential clinical role in impaction bone grafting. <i>Regenerative Medicine</i> , 2006, 1, 457-467.	0.8	39
152	Surface mobility regulates skeletal stem cell differentiation. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 531.	0.6	39
153	Maternal high-fat diet: effects on offspring bone structure. <i>Osteoporosis International</i> , 2010, 21, 1703-1714.	1.3	38
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