Barbara D Boyan

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Role of material surfaces in regulating bone and cartilage cell response. Biomaterials, 1996, 17, 137-146.	11.4	1,194
2	The effects of combined micron-/submicron-scale surface roughness and nanoscale features on cell proliferation and differentiation. Biomaterials, 2011, 32, 3395-3403.	11.4	709
3	Response of MG63 osteoblast-like cells to titanium and titanium alloy is dependent on surface roughness and composition. Biomaterials, 1998, 19, 2219-2232.	11.4	638
4	A review on the wettability of dental implant surfaces II: Biological and clinical aspects. Acta Biomaterialia, 2014, 10, 2907-2918.	8.3	607
5	Titanium surface characteristics, including topography and wettability, alter macrophage activation. Acta Biomaterialia, 2016, 31, 425-434.	8.3	471
6	Requirement for both micron- and submicron scale structure for synergistic responses of osteoblasts to substrate surface energy and topography. Biomaterials, 2007, 28, 2821-2829.	11.4	414
7	A review on the wettability of dental implant surfaces I: Theoretical and experimental aspects. Acta Biomaterialia, 2014, 10, 2894-2906.	8.3	356
8	Implant osseointegration and the role of microroughness and nanostructures: Lessons for spine implants. Acta Biomaterialia, 2014, 10, 3363-3371.	8.3	344
9	Ability of Commercial Demineralized Freezeâ€Dried Bone Allograft to Induce New Bone Formation. Journal of Periodontology, 1996, 67, 918-926.	3.4	291
10	The Role of Implant Surface Characteristics in the Healing of Bone. Critical Reviews in Oral Biology and Medicine, 1996, 7, 329-345.	4.4	278
11	Direct and indirect effects of microstructured titanium substrates on the induction of mesenchymal stem cell differentiation towards the osteoblast lineage. Biomaterials, 2010, 31, 2728-2735.	11.4	265
12	Osteoblasts generate an osteogenic microenvironment when grown on surfaces with rough microtopographies. , 2003, 6, 22-27.		257
13	The roles of titanium surface micro/nanotopography and wettability on the differential response of human osteoblast lineage cells. Acta Biomaterialia, 2013, 9, 6268-6277.	8.3	252
14	Osteoblast-Mediated Mineral Deposition in Culture is Dependent on Surface Microtopography. Calcified Tissue International, 2002, 71, 519-529.	3.1	245
15	Ability of Commercial Demineralized Freezeâ€Dried Bone Allograft to Induce New Bone Formation Is Dependent on Donor Age But Not Gender. Journal of Periodontology, 1998, 69, 470-478.	3.4	219
16	Potential of chemically modified hydrophilic surface characteristics to support tissue integration of titanium dental implants. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 88B, 544-557.	3.4	218
17	Osteoblast-like cells are sensitive to submicron-scale surface structure. Clinical Oral Implants Research, 2006, 17, 258-264.	4.5	217
18	Additively manufactured 3D porous Ti-6Al-4V constructs mimic trabecular bone structure and regulate osteoblast proliferation, differentiation and local factor production in a porosity and surface roughness dependent manner. Biofabrication, 2014, 6, 045007.	7.1	197

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19	Regulation of angiogenesis during osseointegration by titanium surface microstructure and energy. Biomaterials, 2010, 31, 4909-4917.	11.4	188
20	Differential expression of phenotype by resting zone and growth region costochondral chondrocytes in vitro. Bone, 1988, 9, 185-194.	2.9	186
21	Porcine Fetal Enamel Matrix Derivative Stimulates Proliferation But Not Differentiation of Preâ€Osteoblastic 2T9 Cells, Inhibits Proliferation and Stimulates Differentiation of Osteoblastâ€Like MG63 Cells, and Increases Proliferation and Differentiation of Normal Human Osteoblast NHOst Cells. Journal of Periodontology, 2000, 71, 1287-1296.	3.4	180
22	Effects of combining transforming growth factor beta and 1,25-dihydroxyvitamin D3 on differentiation of a human osteosarcoma (MG-63).. Journal of Biological Chemistry, 1992, 267, 8943-8949.	3.4	175
23	Mechanisms Involved in Osteoblast Response to Implant Surface Morphology. Annual Review of Materials Research, 2001, 31, 357-371.	9.3	171
24	Effect of cleaning and sterilization on titanium implant surface properties and cellular response. Acta Biomaterialia, 2012, 8, 1966-1975.	8.3	169
25	Osteoblasts exhibit a more differentiated phenotype and increased bone morphogenetic protein production on titanium alloy substrates than on poly-ether-ether-ketone. Spine Journal, 2012, 12, 265-272.	1.3	168
26	Advances in Porous Scaffold Design for Bone and Cartilage Tissue Engineering and Regeneration. Tissue Engineering - Part B: Reviews, 2019, 25, 14-29.	4.8	166
27	Phagocytosis of wear debris by osteoblasts affects differentiation and local factor production in a manner dependent on particle composition. Biomaterials, 2000, 21, 551-561.	11.4	165
28	Porcine Fetal Enamel Matrix Derivative Enhances Bone Formation Induced by Demineralized Freeze Dried Bone Allograft In Vivo. Journal of Periodontology, 2000, 71, 1278-1286.	3.4	162
29	Substrate Stiffness Controls Osteoblastic and Chondrocytic Differentiation of Mesenchymal Stem Cells without Exogenous Stimuli. PLoS ONE, 2017, 12, e0170312.	2.5	157
30	Direct Effects of 1,25-Dihydroxyvitamin D₃and 24,25-Dihydroxyvitamin D3 on Growth Zone and Resting Zone Chondrocyte Membrane Alkaline Phosphatase and Phospholipase-A2 Specific Activities*. Endocrinology, 1988, 123, 2878-2884.	2.8	150
31	T<scp>he </scp>U<scp>se of </scp>E<scp>namel </scp>M<scp>atrix </scp>D<scp>erivative in the </scp>T<scp>reatment of </scp>P<scp>eriodontal </scp>D<scp>efects</scp>: <scp>a </scp>L<scp>iterature </scp>R<scp>eview and </scp>M<scp>eta</scp>-<scp>analysis</scp>. Critical Reviews in Oral Biology and Medicine, 2004, 15, 382-402.	4.4	147
32	Ability of Deproteinized Cancellous Bovine Bone to Induce New Bone Formation. Journal of Periodontology, 2000, 71, 1258-1269.	3.4	146
33	The Effects of Vitamin D Metabolites on the Plasma and Matrix Vesicle Membranes of Growth and Resting Cartilage Cells<i>in Vitro</i>*. Endocrinology, 1988, 122, 2851-2860.	2.8	142
34	Differential responses of osteoblast lineage cells to nanotopographically-modified, microroughened titaniumâ€“aluminumâ€“vanadium alloy surfaces. Biomaterials, 2012, 33, 8986-8994.	11.4	141
35	Effect of Micrometer-Scale Roughness of the Surface of Ti6Al4V Pedicle Screws in Vitro and in Vivo. Journal of Bone and Joint Surgery - Series A, 2008, 90, 2485-2498.	3.0	133
36	Integrin Î±5 controls osteoblastic proliferation and differentiation responses to titanium substrates presenting different roughness characteristics in a roughness independent manner. Journal of Biomedical Materials Research - Part A, 2007, 80A, 700-710.	4.0	130

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37	Surface roughness mediates its effects on osteoblasts via protein kinase A and phospholipase A2. Biomaterials, 1999, 20, 2305-2310.	11.4	128
38	Mediation of osteogenic differentiation of human mesenchymal stem cells on titanium surfaces by a Wnt-integrin feedback loop. Biomaterials, 2011, 32, 6399-6411.	11.4	128
39	Implant Materials Generate Different Peri-implant Inflammatory Factors. Spine, 2015, 40, 399-404.	2.0	127
40	Mechanisms regulating increased production of osteoprotegerin by osteoblasts cultured on microstructured titanium surfaces. Biomaterials, 2009, 30, 3390-3396.	11.4	123
41	Ceramic and PMMA particles differentially affect osteoblast phenotype. Biomaterials, 2002, 23, 1855-1863.	11.4	118
42	Rough titanium alloys regulate osteoblast production of angiogenic factors. Spine Journal, 2013, 13, 1563-1570.	1.3	112
43	<sup />Roughness and Hydrophilicity as Osteogenic Biomimetic Surface Properties. Tissue Engineering - Part A, 2017, 23, 1479-1489.	3.1	107
44	Electrical Implications of Corrosion for Osseointegration of Titanium Implants. Journal of Dental Research, 2011, 90, 1389-1397.	5.2	102
45	Matrix vesicles are enriched in metalloproteinases that degrade proteoglycans. Calcified Tissue International, 1992, 50, 342-349.	3.1	101
46	Local factor production by MG63 osteoblast-like cells in response to surface roughness and 1,25-(OH)2D3 is mediated via protein kinase C- and protein kinase A-dependent pathways. Biomaterials, 2001, 22, 731-741.	11.4	99
47	The responses to surface wettability gradients induced by chitosan nanofilms on microtextured titanium mediated by specific integrin receptors. Biomaterials, 2012, 33, 7386-7393.	11.4	99
48	Nongenomic regulation of protein kinase C isoforms by the vitamin D metabolites 1Î±,25-(OH)2D3 and 24R,25-(OH)2D3. Journal of Cellular Physiology, 1996, 167, 380-393.	4.1	95
49	Addition of Human Recombinant Bone Morphogenetic Proteinâ€2 to Inactive Commercial Human Demineralized Freezeâ€Dried Bone Allograft Makes An Effective Composite Bone Inductive Implant Material. Journal of Periodontology, 1998, 69, 1337-1345.	3.4	91
50	Membrane Estrogen Signaling Enhances Tumorigenesis and Metastatic Potential of Breast Cancer Cells via Estrogen Receptor-Î±36 (ERÎ±36). Journal of Biological Chemistry, 2012, 287, 7169-7181.	3.4	89
51	Role of integrin subunits in mesenchymal stem cell differentiation and osteoblast maturation on graphitic carbon-coated microstructured surfaces. Biomaterials, 2015, 51, 69-79.	11.4	86
52	Protein-disulfide Isomerase-associated 3 (Pdia3) Mediates the Membrane Response to 1,25-Dihydroxyvitamin D3 in Osteoblasts. Journal of Biological Chemistry, 2010, 285, 37041-37050.	3.4	85
53	Activation of Latent Transforming Growth Factor Î²1 by Stromelysin 1 in Extracts of Growth Plate Chondrocyte-Derived Matrix Vesicles. Journal of Bone and Mineral Research, 2001, 16, 1281-1290.	2.8	84
54	Plasma membrane Pdia3 and VDR interact to elicit rapid responses to 1Î±,25(OH)2D3. Cellular Signalling, 2013, 25, 2362-2373.	3.6	83

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55	Platelet-Derived Growth Factor Inhibits Demineralized Bone Matrix-Induced Intramuscular Cartilage and Bone Formation. Journal of Bone and Joint Surgery - Series A, 2005, 87, 2052-2064.	3.0	82
56	Rapid steroid hormone actions via membrane receptors. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 2289-2298.	4.1	80
57	17?-estradiol-BSA conjugates and 17?-estradiol regulate growth plate chondrocytes by common membrane associated mechanisms involving PKC dependent and independent signal transduction. Journal of Cellular Biochemistry, 2001, 81, 413-429.	2.6	78
58	Regulation of arachidonic acid turnover by 1,25-(OH)2D3 and 24,25-(OH)2D3 in growth zone and resting zone chondrocyte cultures. Biochimica Et Biophysica Acta - Biomembranes, 1990, 1027, 278-286.	2.6	76
59	Differential regulation of prostaglandin E2 synthesis and phospholipase A2 activity by 1,25-(OH)2D3 in three osteoblast-like cell lines (MC-3T3-E1, ROS 17/2.8, and MG-63). Bone, 1992, 13, 51-58.	2.9	76
60	Membrane actions of vitamin D metabolites 1?,25(OH)2D3 and 24R,25(OH)2D3 are retained in growth plate cartilage cells from vitamin D receptor knockout mice. Journal of Cellular Biochemistry, 2003, 90, 1207-1223.	2.6	76
61	Nongenomic regulation of chondrocyte membrane fluidity by 1,25-(OH)2D3 and 24,25-(OH)2D3 is dependent on cell maturation. Bone, 1993, 14, 609-617.	2.9	74
62	Role of lipids in calcification of cartilage. The Anatomical Record, 1989, 224, 211-219.	1.8	72
63	Osteoblast maturation and new bone formation in response to titanium implant surface features are reduced with age. Journal of Bone and Mineral Research, 2012, 27, 1773-1783.	2.8	71
64	Osteogenic response of human MSCs and osteoblasts to hydrophilic and hydrophobic nanostructured titanium implant surfaces. Journal of Biomedical Materials Research - Part A, 2016, 104, 3137-3148.	4.0	71
65	D<scp>ifferential</scp>R<scp>egulation of</scp>G<scp>rowth</scp>P<scp>late</scp>C<scp>hondrocytes by</scp>1Î±,25-(OH)₂D₃<scp>and</scp>24R,25-(OH)₂D₃I<scp>nvolves</scp>C<s Critical Reviews in Oral Biology and Medicine, 2002, 13, 143-154.	4.4	70
66	Caveolin-1 Knockout Mice Have Increased Bone Size and Stiffness. Journal of Bone and Mineral Research, 2007, 22, 1408-1418.	2.8	70
67	Dental implant surface chemistry and energy alter macrophage activation <i>inÂvitro</i>. Clinical Oral Implants Research, 2017, 28, 414-423.	4.5	70
68	Integrin Î²1 silencing in osteoblasts alters substrate-dependent responses to 1,25-dihydroxy vitamin D3. Biomaterials, 2006, 27, 3716-3725.	11.4	69
69	Role of non-canonical Wnt signaling in osteoblast maturation on microstructured titanium surfaces. Acta Biomaterialia, 2011, 7, 2740-2750.	8.3	68
70	Regulation of osteoclasts by osteoblast lineage cells depends on titanium implant surface properties. Acta Biomaterialia, 2018, 68, 296-307.	8.3	68
71	Regulation of prostaglandin E2 production by vitamin D metabolites in growth zone and resting zone chondrocyte cultures is dependent on cell maturation. Bone, 1992, 13, 395-401.	2.9	67
72	Gender dependent effects of testosterone and 17Î²-estradiol on bone growth and modelling in young mice. Bone and Mineral, 1994, 24, 43-58.	1.9	67

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73	Evidence for distinct membrane receptors for 1Î±,25-(OH)2D3 and 24R,25-(OH)2D3 in osteoblasts. Steroids, 2002, 67, 235-246.	1.8	67
74	Osteoblast Lineage Cells Can Discriminate Microscale Topographic Features on Titaniumâ€"Aluminumâ€"Vanadium Surfaces. Annals of Biomedical Engineering, 2014, 42, 2551-2561.	2.5	67
75	24,25-(OH)2D3 regulates cartilage and bone via autocrine and endocrine mechanisms. Steroids, 2001, 66, 363-374.	1.8	65
76	A 2-Year Follow-Up of Root Coverage Using Subpedicle Acellular Dermal Matrix Allografts and Subepithelial Connective Tissue Autografts. Journal of Periodontology, 2005, 76, 1323-1328.	3.4	65
77	Vitamin D Regulation of Metal loproteinase Activity in Matrix Vesicles. Connective Tissue Research, 1996, 35, 331-336.	2.3	64
78	Human articular chondrocytes exhibit sexual dimorphism in their responses to 17Î²-estradiol. Osteoarthritis and Cartilage, 2005, 13, 330-337.	1.3	64
79	Implant Surface Design Regulates Mesenchymal Stem Cell Differentiation and Maturation. Advances in Dental Research, 2016, 28, 10-17.	3.6	64
80	Controlled release of rat adipose-derived stem cells from alginate microbeads. Biomaterials, 2013, 34, 8172-8184.	11.4	63
81	Does Sex Matter in Musculoskeletal Health?<sbt aid="1021074">The Influence of Sex and Gender on Musculoskeletal Health<cross-ref type="fn" refid="fn1">*</cross-ref></sbt>. Journal of Bone and Joint Surgery - Series A, 2005, 87, 1631.	3.0	61
82	The roles of Wnt signaling modulators Dickkopf-1 (Dkk1) and Dickkopf-2 (Dkk2) and cell maturation state in osteogenesis on microstructured titanium surfaces. Biomaterials, 2010, 31, 2015-2024.	11.4	61
83	Mechanical stiffness as an improved single-cell indicator of osteoblastic human mesenchymal stem cell differentiation. Journal of Biomechanics, 2014, 47, 2197-2204.	2.1	61
84	Effect of 1,25(OH)2D3 and 24,25(OH)2D3 on calcium ion fluxes in costochondral chondrocyte cultures. Calcified Tissue International, 1990, 47, 230-236.	3.1	60
85	Effects of structural properties of electrospun TiO2 nanofiber meshes on their osteogenic potential. Acta Biomaterialia, 2012, 8, 878-885.	8.3	59
86	Novel hydrophilic nanostructured microtexture on direct metal laser sintered Ti-6Al-4V surfaces enhances osteoblast response<i>in vitro</i>and osseointegration in a rabbit model. Journal of Biomedical Materials Research - Part A, 2016, 104, 2086-2098.	4.0	59
87	1,25-(OH)2D3 and 24,25-(OH)2D3 regulation of arachidonic acid turnover in chondrocyte cultures is cell maturation-specific and may involve direct effects on phospholipase A2. Biochimica Et Biophysica Acta - Molecular Cell Research, 1992, 1136, 45-51.	4.1	57
88	Nongenomic regulation of extracellular matrix events by vitamin D metabolites. Journal of Cellular Biochemistry, 1994, 56, 331-339.	2.6	55
89	Chondrocyte cultures express matrix metalloproteinase mRNA and immunoreactive protein; stromelysin-1 and 72 kDa gelatinase are localized in extracellular matrix vesicles. Journal of Cellular Biochemistry, 1996, 61, 375-391.	2.6	53
90	17Î²-Estradiol regulation of protein kinase C activity in chondrocytes is sex-dependent and involves nongenomic mechanisms. , 1998, 176, 435-444.		53

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91	The membrane effects of 17Î²-estradiol on chondrocyte phenotypic expression are mediated by activation of protein kinase C through phospholipase C and G-proteins. Journal of Steroid Biochemistry and Molecular Biology, 2000, 73, 211-224.	2.5	52
92	Osteoblast Proliferation and Differentiation on Dentin Slices Are Modulated by Pretreatment of the Surface With Tetracycline or Osteoclasts. Journal of Periodontology, 2000, 71, 586-597.	3.4	52
93	Regulating in vivo calcification of alginate microbeads. Biomaterials, 2010, 31, 4926-4934.	11.4	52
94	Alginate Microencapsulation Technology for the Percutaneous Delivery of Adipose-Derived Stem Cells. Annals of Plastic Surgery, 2010, 65, 497-503.	0.9	51
95	Adipose stem cells can secrete angiogenic factors that inhibit hyaline cartilage regeneration. Stem Cell Research and Therapy, 2012, 3, 35.	5.5	51
96	Membrane-mediated actions of 1,25-dihydroxy vitamin D3: A review of the roles of phospholipase A2 activating protein and Ca2+/calmodulin-dependent protein kinase II. Journal of Steroid Biochemistry and Molecular Biology, 2015, 147, 81-84.	2.5	51
97	The effect of 24R,25-(OH)2D3 on protein kinase C activity in chondrocytes is mediated by phospholipase D whereas the effect of 1Î±,25-(OH)2D3 is mediated by phospholipase C. Steroids, 2001, 66, 683-694.	1.8	48
98	Selective enrichment of microRNAs in extracellular matrix vesicles produced by growth plate chondrocytes. Bone, 2016, 88, 47-55.	2.9	48
99	Effect of 17Î²-estradiol on chondrocyte membrane fluidity and phospholipid metabolism is membrane-specific, sex-specific, and cell maturation-dependent. Biochimica Et Biophysica Acta - Biomembranes, 1996, 1282, 1-10.	2.6	46
100	Plasma membrane requirements for 1Î±,25(OH)2D3 dependent PKC signaling in chondrocytes and osteoblasts. Steroids, 2006, 71, 286-290.	1.8	46
101	The Titanium-Bone Cell Interface In Vitro: The Role of the Surface in Promoting Osteointegration. Engineering Materials, 2001, , 561-585.	0.6	46
102	Vitamin D3 metabolites regulate LTBP1 and latent TGF-?1 expression and latent TGF-?1 incorporation in the extracellular matrix of chondrocytes. Journal of Cellular Biochemistry, 1999, 72, 151-165.	2.6	45
103	Rapidly polymerizing injectable click hydrogel therapy to delay bone growth in a murine re-synostosis model. Biomaterials, 2014, 35, 9698-9708.	11.4	45
104	Changes in extracellular matrix vesicles during healing of rat tibial bone: A morphometric and biochemical study. Bone, 1989, 10, 53-60.	2.9	44
105	BMP2 induces osteoblast apoptosis in a maturation state and nogginâ€dependent manner. Journal of Cellular Biochemistry, 2012, 113, 3236-3245.	2.6	44
106	Addressing the gaps: sex differences in osteoarthritis of the knee. Biology of Sex Differences, 2013, 4, 4.	4.1	44
107	Performance of laser sintered Tiâ€"6Alâ€"4V implants with bone-inspired porosity and micro/nanoscale surface roughness in the rabbit femur. Biomedical Materials (Bristol), 2017, 12, 025021.	3.3	44
108	1Î±,25(OH)2D3 causes a rapid increase in phosphatidylinositol-specific PLC-Î² activity via phospholipase A2-dependent production of lysophospholipid. Steroids, 2003, 68, 423-437.	1.8	43

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109	1Î±,25(OH)2D3 is an autocrine regulator of extracellular matrix turnover and growth factor release via ERp60 activated matrix vesicle metalloproteinases. Journal of Steroid Biochemistry and Molecular Biology, 2007, 103, 467-472.	2.5	43
110	Lysophosphatidic acid signaling promotes proliferation, differentiation, and cell survival in rat growth plate chondrocytes. Biochimica Et Biophysica Acta - Molecular Cell Research, 2009, 1793, 836-846.	4.1	43
111	Role of ERÎ±36 in membrane-associated signaling by estrogen. Steroids, 2014, 81, 74-80.	1.8	42
112	1Î±,25(OH)2D3 Regulates Chondrocyte Matrix Vesicle Protein Kinase C (PKC) Directly via G-protein-dependent Mechanisms and Indirectly via Incorporation of PKC during Matrix Vesicle Biogenesis. Journal of Biological Chemistry, 2002, 277, 11828-11837.	3.4	40
113	Regulation of Growth Plate Chondrocytes by 1,25-Dihydroxyvitamin D3 Requires Caveolae and Caveolin-1. Journal of Bone and Mineral Research, 2006, 21, 1637-1647.	2.8	40
114	The dependence of MG63 osteoblast responses to (meth)acrylate-based networks on chemical structure and stiffness. Biomaterials, 2010, 31, 6131-6141.	11.4	40
115	Disruption of Pdia3 gene results in bone abnormality and affects 1Î±,25-dihydroxy-vitamin D3-induced rapid activation of PKC. Journal of Steroid Biochemistry and Molecular Biology, 2010, 121, 257-260.	2.5	40
116	Enhancement of Surface Wettability via the Modification of Microtextured Titanium Implant Surfaces with Polyelectrolytes. Langmuir, 2011, 27, 5976-5985.	3.5	40
117	Mechanism of Pdia3-dependent 1Î±,25-dihydroxy vitamin D3 signaling in musculoskeletal cells. Steroids, 2012, 77, 892-896.	1.8	40
118	Galectinâ€1 promotes an M2 macrophage response to polydioxanone scaffolds. Journal of Biomedical Materials Research - Part A, 2017, 105, 2562-2571.	4.0	40
119	Characterization of prostaglandin E2 receptors and their role in 24,25-(OH)2D3-mediated effects on resting zone chondrocytes. Journal of Cellular Physiology, 2000, 182, 196-208.	4.1	39
120	Resveratrol effect on osteogenic differentiation of rat and human adipose derived stem cells in a 3-D culture environment. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 11, 112-122.	3.1	39
121	Role of Î±2Î²1 integrins in mediating cell shape on microtextured titanium surfaces. Journal of Biomedical Materials Research - Part A, 2015, 103, 564-573.	4.0	38
122	Arachidonic acid is an autocoid mediator of the differential action of 1,25-(OH)2D3 and 24,25-(OH)2D3 on growth plate chondrocytes. Journal of Cellular Physiology, 1998, 176, 516-524.	4.1	37
123	Laser Sintered Porous Tiâ€"6Alâ€"4V Implants Stimulate Vertical Bone Growth. Annals of Biomedical Engineering, 2017, 45, 2025-2035.	2.5	37
124	Change in surface roughness by dynamic shape-memory acrylate networks enhances osteoblast differentiation. Biomaterials, 2016, 110, 34-44.	11.4	36
125	Coverage of Previously Carious Roots Is as Predictable a Procedure as Coverage of Intact Roots. Journal of Periodontology, 2002, 73, 1419-1426.	3.4	35
126	Sex-specific regulation of growth plate chondrocytes by estrogen is via multiple MAP kinase signaling pathways. Biochimica Et Biophysica Acta - Molecular Cell Research, 2006, 1763, 381-392.	4.1	35

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127	Microstructured titanium regulates interleukin production by osteoblasts, an effect modulated by exogenous BMP-2. Acta Biomaterialia, 2013, 9, 5821-5829.	8.3	35
128	Inhibition of cyclooxygenase by indomethacin modulates osteoblast response to titanium surface roughness in a time-dependent manner. Clinical Oral Implants Research, 2001, 12, 52-61.	4.5	34
129	Osteoprotegerin (OPG) Production by Cells in the Osteoblast Lineage is Regulated by Pulsed Electromagnetic Fields in Cultures Grown on Calcium Phosphate Substrates. Annals of Biomedical Engineering, 2009, 37, 437-444.	2.5	34
130	Phospholipase A2 activating protein is required for 1Î±,25-dihydroxyvitamin D3 dependent rapid activation of protein kinase C via Pdia3. Journal of Steroid Biochemistry and Molecular Biology, 2012, 132, 48-56.	2.5	34
131	Estrogen receptor-alpha 36 mediates the anti-apoptotic effect of estradiol in triple negative breast cancer cells via a membrane-associated mechanism. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2796-2806.	4.1	34
132	Coordinated regulation of mesenchymal stem cell differentiation on microstructured titanium surfaces by endogenous bone morphogenetic proteins. Bone, 2015, 73, 208-216.	2.9	34
133	Hydrogels derived from cartilage matrices promote induction of human mesenchymal stem cell chondrogenic differentiation. Acta Biomaterialia, 2016, 43, 139-149.	8.3	34
134	Comparable responses of osteoblast lineage cells to microstructured hydrophilic titaniumâ€“zirconium and microstructured hydrophilic titanium. Clinical Oral Implants Research, 2017, 28, e51-e59.	4.5	34
135	24R,25-(OH)2D3 mediates its membrane receptor-dependent effects on protein kinase C and alkaline phosphatase via phospholipase A2 and cyclooxygenase-1 but not cyclooxygenase-2 in growth plate chondrocytes. Journal of Cellular Physiology, 2000, 182, 390-401.	4.1	33
136	Regulation of phospholipase D (PLD) in growth plate chondrocytes by 24R,25-(OH)2D3 is dependent on cell maturation state (resting zone cells) and is specific to the PLD2 isoform. Biochimica Et Biophysica Acta - Molecular Cell Research, 2001, 1499, 209-221.	4.1	33
137	Use of polyelectrolyte thin films to modulate Osteoblast response to microstructured titanium surfaces. Biomaterials, 2012, 33, 5267-5277.	11.4	33
138	Decellularized Muscle Supports New Muscle Fibers and Improves Function Following Volumetric Injury. Tissue Engineering - Part A, 2018, 24, 1228-1241.	3.1	33
139	Phospholipase A₂ activating protein (PLAA) is required for 1Î±,25(OH)₂D₃ signaling in growth plate chondrocytes. Journal of Cellular Physiology, 2005, 203, 54-70.	4.1	32
140	Matrix Vesicles as a Marker of Endochondral Ossification. Connective Tissue Research, 1990, 24, 67-75.	2.3	31
141	Effect of Porcine Fetal Enamel Matrix Derivative on Chondrocyte Proliferation, Differentiation, and Local Factor Production Is Dependent on Cell Maturation State. Cells Tissues Organs, 2002, 171, 117-127.	2.3	31
142	Osteoinductive Ability of Human Allograft Formulations. Journal of Periodontology, 2006, 77, 1555-1563.	3.4	31
143	Osteoinductivity of demineralized bone matrix in immunocompromised mice and rats is decreased by ovariectomy and restored by estrogen replacement. Bone, 2007, 40, 111-121.	2.9	31
144	24R,25-Dihydroxyvitamin D3 [24R,25(OH)2D3] controls growth plate development by inhibiting apoptosis in the reserve zone and stimulating response to 1Î±,25(OH)2D3 in hypertrophic cells. Journal of Steroid Biochemistry and Molecular Biology, 2010, 121, 212-216.	2.5	31

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145	Prostaglandins mediate the effects of 1,25-(OH)2D3 and 24,25-(OH)2D3 on growth plate chondrocytes in a metabolite-specific and cell maturation-dependent manner. Bone, 1999, 24, 475-484.	2.9	30
146	New insights on membrane mediated effects of 1Î±,25-dihydroxy vitamin D3 signaling in the musculoskeletal system. Steroids, 2014, 81, 81-87.	1.8	30
147	Signaling components of the 1Î±,25(OH)2D3-dependent Pdia3 receptor complex are required for Wnt5a calcium-dependent signaling. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 2365-2375.	4.1	30
148	Spag17 Deficiency Results in Skeletal Malformations and Bone Abnormalities. PLoS ONE, 2015, 10, e0125936.	2.5	30
149	24R,25-Dihydroxyvitamin D3 Protects against Articular Cartilage Damage following Anterior Cruciate Ligament Transection in Male Rats. PLoS ONE, 2016, 11, e0161782.	2.5	30
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