Renny T Franceschi

List of Publications by Year
in descending order

120 papers	11,887 citations	30551 56 h-index	30277 107 g-index
129 all docs	129 docs citations	129 times ranked	12233 citing authors

#	Article	IF	Citations
1	Spatiotemporal control of myofibroblast activation in acoustically-responsive scaffolds via ultrasound-induced matrix stiffening. Acta Biomaterialia, 2022, 138, 133-143.	4.1	10
2	The collagen receptor, discoidin domain receptor 2, functions in Gli1-positive skeletal progenitors and chondrocytes to control bone development. Bone Research, 2022, 10, 11.	5.4	15
3	Expression of Beta-Catenin, Cadherins and P-Runx2 in Fibro-Osseous Lesions of the Jaw: Tissue Microarray Study. Biomolecules, 2022, 12, 587.	1.8	2
4	Cranial Base Synchondrosis: Chondrocytes at the Hub. International Journal of Molecular Sciences, 2022, 23, 7817.	1.8	9
5	Role of Runx2 in prostate development and stem cell function. Prostate, 2021, 81, 231-241.	1.2	7
6	Spatially-directed angiogenesis using ultrasound-controlled release of basic fibroblast growth factor from acoustically-responsive scaffolds. Acta Biomaterialia, 2021, 129, 73-83.	4.1	20
7	A new murine<i>Rpl5</i>(<i>uL18</i>) mutation provides a unique model of variably penetrant Diamond-Blackfan anemia. Blood Advances, 2021, 5, 4167-4178.	2.5	5
8	Release of basic fibroblast growth factor from acoustically-responsive scaffolds promotes therapeutic angiogenesis in the hind limb ischemia model. Journal of Controlled Release, 2021, 338, 773-783.	4.8	24
9	Spatiotemporal control of micromechanics and microstructure in acoustically-responsive scaffolds using acoustic droplet vaporization. Soft Matter, 2020, 16, 6501-6513.	1.2	16
10	Spatially-directed cell migration in acoustically-responsive scaffolds through the controlled delivery of basic fibroblast growth factor. Acta Biomaterialia, 2020, 113, 217-227.	4.1	16
11	Local delivery of bone morphogenetic protein-2 from near infrared-responsive hydrogels for bone tissue regeneration. Biomaterials, 2020, 241, 119909.	5.7	45
12	Control of Osteoblast Transcription. , 2020, , 427-438.		0
13	Controlled delivery of basic fibroblast growth factor (bFGF) using acoustic droplet vaporization stimulates endothelial network formation. Acta Biomaterialia, 2019, 97, 409-419.	4.1	30
14	Parametric Study of Acoustic Droplet Vaporization Thresholds and Payload Release From Acoustically-Responsive Scaffolds. Ultrasound in Medicine and Biology, 2019, 45, 2471-2484.	0.7	23
15	Spatiotemporally-controlled transgene expression in hydroxyapatite-fibrin composite scaffolds using high intensity focused ultrasound. Biomaterials, 2019, 194, 14-24.	5.7	15
16	Mutation of Murine Rpl5 reveals a New Model for Diamond Blackfan Anemia Characterized By Defective Erythropoiesis. Blood, 2019, 134, 2495-2495.	0.6	0
17	Genetic inhibition of PPARÎ³ S112 phosphorylation reduces bone formation and stimulates marrow adipogenesis. Bone, 2018, 107, 1-9.	1.4	26
18	Diabetic Vascular Calcification Mediated by the Collagen Receptor Discoidin Domain Receptor 1 via the Phosphoinositide 3-Kinase/Akt/Runt-Related Transcription Factor 2 Signaling Axis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2018, 38, 1878-1889.	1.1	43

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19	Sequential Payload Release from Acoustically-Responsive Scaffolds Using Focused Ultrasound. Ultrasound in Medicine and Biology, 2018, 44, 2323-2335.	0.7	33
20	Vitamin D Regulation of Osteoblast Function. , 2018, , 295-308.		3
21	Mesenchymal Stem Cell-Induced DDR2 Mediates Stromal-Breast Cancer Interactions and Metastasis Growth. Cell Reports, 2017, 18, 1215-1228.	2.9	88
22	Controlled release of basic fibroblast growth factor for angiogenesis using acoustically-responsive scaffolds. Biomaterials, 2017, 140, 26-36.	5.7	68
23	Skeletal Stem Cells: Origins, Functions, and Uncertainties. Current Molecular Biology Reports, 2017, 3, 236-246.	0.8	7
24	Control of the Osteoblast Lineage by Mitogen-Activated Protein Kinase Signaling. Current Molecular Biology Reports, 2017, 3, 122-132.	0.8	39
25	MAP Kinaseâ€Dependent RUNX2 Phosphorylation Is Necessary for Epigenetic Modification of Chromatin During Osteoblast Differentiation. Journal of Cellular Physiology, 2017, 232, 2427-2435.	2.0	38
26	Discoidin Receptor 2 Controls Bone Formation and Marrow Adipogenesis. Journal of Bone and Mineral Research, 2016, 31, 2193-2203.	3.1	34
27	In Situ Transfection by Controlled Release of Lipoplexes Using Acoustic Droplet Vaporization. Advanced Healthcare Materials, 2016, 5, 1764-1774.	3.9	11
28	In vitro and in vivo assessment of controlled release and degradation of acoustically responsive scaffolds. Acta Biomaterialia, 2016, 46, 221-233.	4.1	32
29	DNMT1 Regulates Epithelial-Mesenchymal Transition and Cancer Stem Cells, Which Promotes Prostate Cancer Metastasis. Neoplasia, 2016, 18, 553-566.	2.3	103
30	Protein Phosphatase PP5 Controls Bone Mass and the Negative Effects of Rosiglitazone on Bone through Reciprocal Regulation of PPARÎ³ (Peroxisome Proliferator-activated Receptor Î³) and RUNX2 (Runt-related Transcription Factor 2). Journal of Biological Chemistry, 2016, 291, 24475-24486.	1.6	21
31	Reciprocal Control of Osteogenic and Adipogenic Differentiation by ERK/MAP Kinase Phosphorylation of Runx2 and PPARÎ³ Transcription Factors. Journal of Cellular Physiology, 2016, 231, 587-596.	2.0	105
32	Use of Hydroxyapatite Doping to Enhance Responsiveness of Heat-Inducible Gene Switches to Focused Ultrasound. Ultrasound in Medicine and Biology, 2016, 42, 824-830.	0.7	3
33	Design and Characterization of Fibrin-Based Acoustically Responsive Scaffolds for Tissue Engineering Applications. Ultrasound in Medicine and Biology, 2016, 42, 257-271.	0.7	33
34	Temporal and spatial patterning of transgene expression by near-infrared irradiation. Biomaterials, 2014, 35, 8134-8143.	5.7	23
35	Spatiotemporal Control of Vascular Endothelial Growth Factor Expression Using a Heat-Shock-Activated, Rapamycin-Dependent Gene Switch. Human Gene Therapy Methods, 2013, 24, 160-170.	2.1	22
36	Acoustic dropletâ€“hydrogel composites for spatial and temporal control of growth factor delivery and scaffold stiffness. Acta Biomaterialia, 2013, 9, 7399-7409.	4.1	68

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37	Osteoblasts-the saga continues (ASBMR 2012). IBMS BoneKEy, 2013, 10, .	0.1	0
38	Tracking circadian rhythms of bone mineral deposition in murine calvarial organ cultures. Journal of Bone and Mineral Research, 2013, 28, 1846-1854.	3.1	58
39	Abstract 313: Phosphorylation of Runx2 and Osteochondrogenic Differentiation of Vascular Smooth Muscle Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, .	1.1	0
40	Ultrasound-induced hyperthermia for the spatio-temporal control of gene expression in bone repair. AIP Conference Proceedings, 2012, , .	0.3	1
41	Orphan Nuclear Receptor Chicken Ovalbumin Upstream Promoter-Transcription Factor II (COUP-TFII) Protein Negatively Regulates Bone Morphogenetic Protein 2-induced Osteoblast Differentiation through Suppressing Runt-related Gene 2 (Runx2) Activity. Journal of Biological Chemistry, 2012, 287, 18888-18899.	1.6	24
42	The role for runt related transcription factor 2 (RUNX2) as a transcriptional repressor in luteinizing granulosa cells. Molecular and Cellular Endocrinology, 2012, 362, 165-175.	1.6	24
43	Collagen XXIV (Col24Î±1) Promotes Osteoblastic Differentiation and Mineralization through TGF-Î²/Smads Signaling Pathway. International Journal of Biological Sciences, 2012, 8, 1310-1322.	2.6	48
44	Biomechanical stimulation of osteoblast gene expression requires phosphorylation of the RUNX2 transcription factor. Journal of Bone and Mineral Research, 2012, 27, 1263-1274.	3.1	77
45	Interactions between extracellular signal-regulated kinase 1/2 and P38 Map kinase pathways in the control of RUNX2 phosphorylation and transcriptional activity. Journal of Bone and Mineral Research, 2012, 27, 538-551.	3.1	131
46	The basic helix loop helix transcription factor twist1 is a novel regulator of ATF4 in osteoblasts. Journal of Cellular Biochemistry, 2012, 113, 70-79.	1.2	21
47	Metformin induces osteoblast differentiation via orphan nuclear receptor SHP-mediated transactivation of Runx2. Bone, 2011, 48, 885-893.	1.4	154
48	Physical and functional interactions between Runx2 and HIF-1Î± induce vascular endothelial growth factor gene expression. Journal of Cellular Biochemistry, 2011, 112, 3582-3593.	1.2	85
49	Vitamin D Regulation of Osteoblast Function. , 2011, , 321-333.		0
50	Differentiation-dependent association of phosphorylated extracellular signal-regulated kinase with the chromatin of osteoblast-related genes. Journal of Bone and Mineral Research, 2010, 25, 154-163.	3.1	41
51	The orphan nuclear receptor SHP is a positive regulator of osteoblastic bone formation. Journal of Bone and Mineral Research, 2010, 25, 262-274.	3.1	26
52	Regulation of bone formation using rapamycin-induced BMP2 expression system: influence of implanted cell number. Molecular and Cellular Toxicology, 2010, 6, 187-194.	0.8	2
53	Patterning alginate hydrogels using light-directed release of caged calcium in a microfluidic device. Biomedical Microdevices, 2010, 12, 145-151.	1.4	72
54	The effects of Runx2 immobilization on poly (É›-caprolactone) on osteoblast differentiation of bone marrow stromal cells in vitro. Biomaterials, 2010, 31, 3231-3236.	5.7	35

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55	The Orphan Nuclear Receptor Estrogen Receptor-related Receptor Î³ Negatively Regulates BMP2-induced Osteoblast Differentiation and Bone Formation. Journal of Biological Chemistry, 2009, 284, 14211-14218.	1.6	46
56	Identification and Functional Characterization of ERK/MAPK Phosphorylation Sites in the Runx2 Transcription Factor. Journal of Biological Chemistry, 2009, 284, 32533-32543.	1.6	206
57	Transcriptional Regulation of Osteoblasts. Cells Tissues Organs, 2009, 189, 144-152.	1.3	113
58	Sp proteins and Runx2 mediate regulation of matrix gla protein (MGP) expression by parathyroid hormone. Journal of Cellular Biochemistry, 2009, 107, 284-292.	1.2	17
59	Inhibition of osteoblastic bone formation by nuclear factor-Î°B. Nature Medicine, 2009, 15, 682-689.	15.2	416
60	FGF2 Stimulation of the Pyrophosphate-Generating Enzyme, PC-1, in Pre-Osteoblast Cells Is Mediated by RUNX2. Journal of Bone and Mineral Research, 2009, 24, 652-662.	3.1	27
61	Critical Role of Activating Transcription Factor 4 in the Anabolic Actions of Parathyroid Hormone in Bone. PLoS ONE, 2009, 4, e7583.	1.1	67
62	Hematopoietic Stem Cells Regulate Mesenchymal Stromal Cell Induction into Osteoblasts Thereby Participating in the Formation of the Stem Cell Niche. Stem Cells, 2008, 26, 2042-2051.	1.4	159
63	Analysis of transcription factor interactions in osteoblasts using competitive chromatin immunoprecipitation. Nucleic Acids Research, 2008, 36, 1723-1730.	6.5	28
64	Gene Delivery by Adenoviruses. Methods in Molecular Biology, 2008, 455, 137-147.	0.4	6
65	Gene Therapy Approaches for Musculoskeletal Tissue Regeneration. , 2008, , 569-591.		0
66	Critical role of the extracellular signalâ€"regulated kinaseâ€"MAPK pathway in osteoblast differentiation and skeletal development. Journal of Cell Biology, 2007, 176, 709-718.	2.3	460
67	Regulation of matrix Gla protein by parathyroid hormone in MC3T3-E1 osteoblast-like cells involves protein kinase A and extracellular signal-regulated kinase pathways. Journal of Cellular Biochemistry, 2007, 102, 496-505.	1.2	11
68	Transcriptional Regulation of Osteoblasts. Annals of the New York Academy of Sciences, 2007, 1116, 196-207.	1.8	165
69	Bone Sialoprotein Gene Transfer to Periodontal Ligament Cells May Not Be Sufficient to Promote Mineralization In Vitro or In Vivo. Journal of Periodontology, 2006, 77, 167-173.	1.7	16
70	BMP Signaling Is Required for RUNX2-Dependent Induction of the Osteoblast Phenotype. Journal of Bone and Mineral Research, 2006, 21, 637-646.	3.1	316
71	Use of a Stringent Dimerizer-Regulated Gene Expression System for Controlled BMP2 Delivery. Molecular Therapy, 2006, 14, 684-691.	3.7	25
72	Combinatorial gene therapy for bone regeneration: Cooperative interactions between adenovirus vectors expressing bone morphogenetic proteins 2, 4, and 7. Journal of Cellular Biochemistry, 2005, 95, 1-16.	1.2	112

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73	Cooperative Interactions between Activating Transcription Factor 4 and Runx2/Cbfa1 Stimulate Osteoblast-specific Osteocalcin Gene Expression. Journal of Biological Chemistry, 2005, 280, 30689-30696.	1.6	215
74	BMP gene delivery for alveolar bone engineering at dental implant defects. Molecular Therapy, 2005, 11, 294-299.	3.7	142
75	Gene Transfer of the Runx2 Transcription Factor Enhances Osteogenic Activity of Bone Marrow Stromal Cells in Vitro and in Vivo. Molecular Therapy, 2005, 12, 247-253.	3.7	145
76	Cooperative Interactions between RUNX2 and Homeodomain Protein-binding Sites Are Critical for the Osteoblast-specific Expression of the Bone Sialoprotein Gene. Journal of Biological Chemistry, 2005, 280, 30845-30855.	1.6	93
77	Biological Approaches to Bone Regeneration by Gene Therapy. Journal of Dental Research, 2005, 84, 1093-1103.	2.5	170
78	Role of Matrix Gla Protein in Parathyroid Hormone Inhibition of Osteoblast Mineralization. Cells Tissues Organs, 2005, 181, 166-175.	1.3	32
79	Parathyroid Hormone Induction of the Osteocalcin Gene. Journal of Biological Chemistry, 2004, 279, 5329-5337.	1.6	44
80	Impact of the Mitogen-activated Protein Kinase Pathway on Parathyroid Hormone-related Protein Actions in Osteoblasts. Journal of Biological Chemistry, 2004, 279, 29121-29129.	1.6	65
81	Gene Therapy Approaches for Bone Regeneration. Cells Tissues Organs, 2004, 176, 95-108.	1.3	92
82	In Vitro and In Vivo Synergistic Interactions Between the Runx2/Cbfa1 Transcription Factor and Bone Morphogenetic Protein-2 in Stimulating Osteoblast Differentiation. Journal of Bone and Mineral Research, 2003, 18, 705-715.	3.1	192
83	Regulation of the osteoblast-specific transcription factor, Runx2: Responsiveness to multiple signal transduction pathways. Journal of Cellular Biochemistry, 2003, 88, 446-454.	1.2	487
84	Multiple Signaling Pathways Converge on the Cbfa1/Runx2 Transcription Factor to Regulate Osteoblast Differentiation. Connective Tissue Research, 2003, 44, 109-116.	1.1	178
85	A Homeodomain Protein Binding Element in the Bone Sialoprotein Promoter is Critical for Tissue-Specific Expression in Bone. Connective Tissue Research, 2003, 44, 154-160.	1.1	14
86	Multiple Signaling Pathways Converge on the Cbfa1/Runx2 Transcription Factor to Regulate Osteoblast Differentiation. Connective Tissue Research, 2003, 44, 109-116.	1.1	49
87	A Homeodomain Protein Binding Element in the Bone Sialoprotein Promoter is Critical for Tissue-Specific Expression in Bone. Connective Tissue Research, 2003, 44, 154-160.	1.1	1
88	Multiple signaling pathways converge on the Cbfa1/Runx2 transcription factor to regulate osteoblast differentiation. Connective Tissue Research, 2003, 44 Suppl 1, 109-16.	1.1	83
89	A homeodomain protein binding element in the bone sialoprotein promoter is critical for tissue-specific expression in bone. Connective Tissue Research, 2003, 44 Suppl 1, 154-60.	1.1	2
90	Fibroblast Growth Factor 2 Induction of the Osteocalcin Gene Requires MAPK Activity and Phosphorylation of the Osteoblast Transcription Factor, Cbfa1/Runx2. Journal of Biological Chemistry, 2002, 277, 36181-36187.	1.6	344

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91	Bone Morphogenetic Protein-Transduced Human Fibroblasts Convert to Osteoblasts and Form Bonein Vivo. Tissue Engineering, 2002, 8, 441-452.	4.9	172
92	Bone Morphogenetic Proteins, Extracellular Matrix, and Mitogen-Activated Protein Kinase Signaling Pathways Are Required for Osteoblast-Specific Gene Expression and Differentiation in MC3T3-E1 Cells. Journal of Bone and Mineral Research, 2002, 17, 101-110.	3.1	418
93	Bone Morphogenetic Protein 2 Induces Dental Follicle Cells to Differentiate Toward a Cementoblast/Osteoblast Phenotype. Journal of Bone and Mineral Research, 2002, 17, 1441-1451.	3.1	157
94	Engineering new bone tissuein vitro on highly porous poly(?-hydroxyl acids)/hydroxyapatite composite scaffolds. Journal of Biomedical Materials Research Part B, 2001, 54, 284-293.	3.0	393
95	Gene therapy for bone formation: In vitro and in vivo osteogenic activity of an adenovirus expressing BMP7. Journal of Cellular Biochemistry, 2000, 78, 476-486.	1.2	204
96	Identification of a Homeodomain Binding Element in the Bone Sialoprotein Gene Promoter That Is Required for Its Osteoblast-selective Expression. Journal of Biological Chemistry, 2000, 275, 13907-13917.	1.6	93
97	MAPK Pathways Activate and Phosphorylate the Osteoblast-specific Transcription Factor, Cbfa1. Journal of Biological Chemistry, 2000, 275, 4453-4459.	1.6	502
98	Parathyroid Hormone-Related Protein Down-Regulates Bone Sialoprotein Gene Expression in Cementoblasts: Role of the Protein Kinase A Pathway**This work was supported by NIH Grants DE-37596, DE-12211, and DK-53904 and the Block Grant from the Horace Rackham School of Graduate Studies, at the University of Michigan.. Endocrinology, 2000, 141, 4671-4680.	1.4	29
99	Engineered Bone Development from a Pre-Osteoblast Cell Line on Three-Dimensional Scaffolds. Tissue Engineering, 2000, 6, 605-617.	4.9	214
100	Gene Therapy-Directed Osteogenesis: BMP-7-Transduced Human Fibroblasts Form Bonein Vivo. Human Gene Therapy, 2000, 11, 1201-1210.	1.4	240
101	Cloning of a 2.5 kb Murine Bone Sialoprotein Promoter Fragment and Functional Analysis of Putative Osf2 Binding Sites. Journal of Bone and Mineral Research, 1999, 14, 396-405.	3.1	81
102	Isolation and Characterization of MC3T3-E1 Preosteoblast Subclones with Distinct In Vitro and In Vivo Differentiation/Mineralization Potential. Journal of Bone and Mineral Research, 1999, 14, 893-903.	3.1	568
103	Glucocorticoid stimulation of Na+-dependent ascorbic acid transport in osteoblast-like cells. Journal of Cellular Physiology, 1998, 176, 85-91.	2.0	7
104	Role of the Î±2-Integrin in Osteoblast-specific Gene Expression and Activation of the Osf2 Transcription Factor. Journal of Biological Chemistry, 1998, 273, 32988-32994.	1.6	339
105	Functional Hierarchy between Two OSE2 Elements in the Control of Osteocalcin Gene Expression in Vivo. Journal of Biological Chemistry, 1998, 273, 30509-30516.	1.6	97
106	Ascorbic Acid-Dependent Activation of the Osteocalcin Promoter in MC3T3-E1 Preosteoblasts: Requirement for Collagen Matrix Synthesis and the Presence of an Intact OSE2 Sequence. Molecular Endocrinology, 1997, 11, 1103-1113.	3.7	173
107	PTH/PTHrP receptor is temporally regulated during osteoblast differentiation and is associated with collagen synthesis. , 1996, 61, 638-647.		73
108	PTH/PTHrP receptor is temporally regulated during osteoblast differentiation and is associated with collagen synthesis. Journal of Cellular Biochemistry, 1996, 61, 638-647.	1.2	2

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109	Effects of differentiation and transforming growth factor Î²1 on PTH/PTHrP receptor mRNA levels in MC3T3-E1 cells. Journal of Bone and Mineral Research, 1995, 10, 1243-1255.	3.1	64
110	Mineralization of bone-like extracellular matrix in the absence of functional osteoblasts. Journal of Bone and Mineral Research, 1995, 10, 1635-1643.	3.1	69
111	Fibronectin gene expression, synthesis, and accumulation during in vitro differentiation of chicken osteoblasts. Journal of Bone and Mineral Research, 1995, 10, 1969-1977.	3.1	61
112	Effects of ascorbic acid on collagen matrix formation and osteoblast differentiation in murine MC3T3-E1 cells. Journal of Bone and Mineral Research, 1994, 9, 843-854.	3.1	381
113	The Role of Ascorbic Acid in Mesenchymal Differentiation. Nutrition Reviews, 1992, 50, 65-70.	2.6	112
114	Relationship between collagen synthesis and expression of the osteoblast phenotype in MC3T3-E1 cells. Journal of Bone and Mineral Research, 1992, 7, 235-246.	3.1	486
115	Characterization of the vitamin D receptor from the Caco-2 human colon carcinoma cell line: Effect of cellular differentiation. Archives of Biochemistry and Biophysics, 1991, 285, 261-269.	1.4	109
116	Regulation of alkaline phosphatase by 1,25-dihydroxyvitamin D3 and ascorbic acid in bone-derived cells. Journal of Bone and Mineral Research, 1990, 5, 1157-1167.	3.1	96
117	1?, 25-Dihydroxyvitamin D3 specific regulation of growth, morphology, and fibronectin in a human osteosarcoma cell line. Journal of Cellular Physiology, 1985, 123, 401-409.	2.0	185
118	Binding proteins for vitamin D metabolites: Serum carriers and intracellular receptors. Archives of Biochemistry and Biophysics, 1981, 210, 1-13.	1.4	73
119	An in vitro study of the stability of the chicken intestinal cytosol 1,25-dihydroxyvitamin D3-specific receptor. Archives of Biochemistry and Biophysics, 1980, 202, 83-92.	1.4	26
120	Matrix Î³-Carboxyglutamic Acid Protein Is a Key Regulator of PTH-Mediated Inhibition of Mineralization in MC3T3-E1 Osteoblast-Like Cells. , 0, .		12