Matthew J Hilton

List of Publications by Year
in descending order

76 papers	5,422 citations	117453 34 h-index	82410 72 g-index
87 all docs	87 docs citations	87 times ranked	7213 citing authors

#	Article	IF	Citations
1	G protein-coupled receptor kinase 3 modulates mesenchymal stem cell proliferation and differentiation through sphingosine-1-phosphate receptor regulation. Stem Cell Research and Therapy, 2022, 13, 37.	2.4	1
2	Hypertrophic chondrocytes serve as a reservoir for marrow-associated skeletal stem and progenitor cells, osteoblasts, and adipocytes during skeletal development. ELife, 2022, 11, .	2.8	28
3	Identification of distinct non-myogenic skeletal-muscle-resident mesenchymal cell populations. Cell Reports, 2022, 39, 110785.	2.9	23
4	Magic angle effect on diffusion tensor imaging in ligament and brain. Magnetic Resonance Imaging, 2022, 92, 243-250.	1.0	2
5	Effect of surface topography on in vitro osteoblast function and mechanical performance of <scp>3D</scp> printed titanium. Journal of Biomedical Materials Research - Part A, 2021, 109, 1792-1802.	2.1	9
6	Hypoxia depletes contaminating CD45+ hematopoietic cells from murine bone marrow stromal cell (BMSC) cultures: Methods for BMSC culture purification. Stem Cell Research, 2021, 53, 102317.	0.3	5
7	Whole-Exome Sequencing of Radiation-Induced Thymic Lymphoma in Mouse Models Identifies Notch1 Activation as a Driver of p53 Wild-Type Lymphoma. Cancer Research, 2021, 81, 3777-3790.	0.4	10
8	STING suppresses bone cancer pain via immune and neuronal modulation. Nature Communications, 2021, 12, 4558.	5.8	50
9	Isolation and Culture of Murine Primary Chondrocytes: Costal and Growth Plate Cartilage. Methods in Molecular Biology, 2021, 2230, 415-423.	0.4	5
10	Demineralized Murine Skeletal Histology. Methods in Molecular Biology, 2021, 2230, 283-302.	0.4	2
11	Whole Mount In Situ Hybridization in Murine Tissues. Methods in Molecular Biology, 2021, 2230, 367-376.	0.4	0
12	HES1 is a novel downstream modifier of the SHH-GLI3 Axis in the development of preaxial polydactyly. PLoS Genetics, 2021, 17, e1009982.	1.5	5
13	Application of genetically modified animals in bone research. , 2020, , 1787-1800.		0
14	Notch Signaling in Cartilage Development and Disease. , 2020, , 589-604.		0
15	Characterization complex collagen fiber architecture in knee joint using highâ€resolution diffusion imaging. Magnetic Resonance in Medicine, 2020, 84, 908-919.	1.9	13
16	PD-1 blockade inhibits osteoclast formation and murine bone cancer pain. Journal of Clinical Investigation, 2020, 130, 3603-3620.	3.9	90
17	Dysregulation of STAT3 signaling is associated with endplate-oriented herniations of the intervertebral disc in Adgrg6 mutant mice. PLoS Genetics, 2019, 15, e1008096.	1.5	24
18	Diffusion tractography of the rat knee at microscopic resolution. Magnetic Resonance in Medicine, 2019, 81, 3775-3786.	1.9	21

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19	Chondrocyte-Specific RUNX2 Overexpression Accelerates Post-traumatic Osteoarthritis Progression in Adult Mice. Journal of Bone and Mineral Research, 2019, 34, 1676-1689.	3.1	51
20	The CaV1.2 L-type calcium channel regulates bone homeostasis in the middle and inner ear. Bone, 2019, 125, 160-168.	1.4	19
21	Glutamine Metabolism Regulates Proliferation and Lineage Allocation in Skeletal Stem Cells. Cell Metabolism, 2019, 29, 966-978.e4.	7.2	170
22	Cell typeâ€specific effects of Notch signaling activation on intervertebral discs: Implications for intervertebral disc degeneration. Journal of Cellular Physiology, 2018, 233, 5431-5440.	2.0	26
23	Intracellular biosynthesis of lipids and cholesterol by Scap and Insig in mesenchymal cells regulates long bone growth and chondrocyte homeostasis. Development (Cambridge), 2018, 145, .	1.2	18
24	The Notch Ligand Jagged1 Regulates the Osteoblastic Lineage by Maintaining the Osteoprogenitor Pool. Journal of Bone and Mineral Research, 2017, 32, 1320-1331.	3.1	44
25	Increased Ca2+ signaling through CaV1.2 promotes bone formation and prevents estrogen deficiencyâ€"induced bone loss. JCI Insight, 2017, 2, .	2.3	38
26	Daily oral consumption of hydrolyzed type 1 collagen is chondroprotective and anti-inflammatory in murine posttraumatic osteoarthritis. PLoS ONE, 2017, 12, e0174705.	1.1	38
27	HES factors regulate specific aspects of chondrogenesis and chondrocyte hypertrophy during cartilage development. Journal of Cell Science, 2016, 129, 2145-55.	1.2	24
28	Suppressive Effects of Insulin on Tumor Necrosis Factorâ€"Dependent Early Osteoarthritic Changes Associated With Obesity and Type 2 Diabetes Mellitus. Arthritis and Rheumatology, 2016, 68, 1392-1402.	2.9	91
29	Use of Hes1 -GFP reporter mice to assess activity of the Hes1 promoter in bone cells under chronic inflammation. Bone, 2016, 90, 80-89.	1.4	9
30	Notch signaling indirectly promotes chondrocyte hypertrophy via regulation of BMP signaling and cell cycle arrest. Scientific Reports, 2016, 6, 25594.	1.6	26
31	CCN1 Regulates Chondrocyte Maturation and Cartilage Development. Journal of Bone and Mineral Research, 2016, 31, 549-559.	3.1	22
32	Notch signaling in postnatal joint chondrocytes, but not subchondral osteoblasts, is required for articular cartilage and joint maintenance. Osteoarthritis and Cartilage, 2016, 24, 740-751.	0.6	28
33	NOTCH signaling in skeletal progenitors is critical for fracture repair. Journal of Clinical Investigation, 2016, 126, 1471-1481.	3.9	96
34	HES factors regulate specific aspects of chondrogenesis and chondrocyte hypertrophy during cartilage development. Development (Cambridge), 2016, 143, e1.1-e1.1.	1.2	1
35	Notch signaling controls chondrocyte hypertrophy via indirect regulation of Sox9. Bone Research, 2015, 3, 15021.	5.4	41
36	Transient gamma-secretase inhibition accelerates and enhances fracture repair likely via Notch signaling modulation. Bone, 2015, 73, 77-89.	1.4	21

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37	A dual role for NOTCH signaling in joint cartilage maintenance and osteoarthritis. Science Signaling, 2015, 8, ra71.	1.6	83
38	PTH Receptor Signaling in Osteoblasts Regulates Endochondral Vascularization in Maintenance of Postnatal Growth Plate. Journal of Bone and Mineral Research, 2015, 30, 309-317.	3.1	33
39	Delayed Fracture Healing and Increased Callus Adiposity in a C57BL/6J Murine Model of Obesity-Associated Type 2 Diabetes Mellitus. PLoS ONE, 2014, 9, e99656.	1.1	88
40	NOTCH-Mediated Maintenance and Expansion of Human Bone Marrow Stromal/Stem Cells: A Technology Designed for Orthopedic Regenerative Medicine. Stem Cells Translational Medicine, 2014, 3, 1456-1466.	1.6	33
41	Multiple hereditary exostoses (MHE): elucidating the pathogenesis of a rare skeletal disorder through interdisciplinary research. Connective Tissue Research, 2014, 55, 80-88.	1.1	21
42	The effect of mesenchymal stem cell sheets on structural allograft healing of critical sized femoral defects in mice. Biomaterials, 2014, 35, 2752-2759.	5.7	89
43	Demineralized Murine Skeletal Histology. Methods in Molecular Biology, 2014, 1130, 165-183.	0.4	10
44	Whole-Mount In Situ Hybridization on Murine Skeletogenic Tissues. Methods in Molecular Biology, 2014, 1130, 193-201.	0.4	4
45	Isolation and Culture of Murine Primary Chondrocytes. Methods in Molecular Biology, 2014, 1130, 267-277.	0.4	25
46	NOTCH inhibits osteoblast formation in inflammatory arthritis via noncanonical NF-Î^oB. Journal of Clinical Investigation, 2014, 124, 3200-3214.	3.9	67
47	RBPâ€ĵÎºâ€"Dependent Notch Signaling Is Required for Murine Articular Cartilage and Joint Maintenance. Arthritis and Rheumatism, 2013, 65, 2623-2633.	6.7	44
48	TAK1 regulates SOX9 expression in chondrocytes and is essential for postnatal development of the growth plate and articular cartilages. Journal of Cell Science, 2013, 126, 5704-13.	1.2	44
49	Troponin T3 expression in skeletal and smooth muscle is required for growth and postnatal survival: Characterization of <i>Tnnt3^{tm2a(KOMP)Wtsi}</i> mice. Genesis, 2013, 51, 667-675.	0.8	20
50	Engineering superficial zone features in tissue engineered cartilage. Biotechnology and Bioengineering, 2013, 110, 1476-1486.	1.7	24
51	Cartilage-specific RBPjÎº-dependent and -independent Notch signals regulate cartilage and bone development. Development (Cambridge), 2012, 139, 1198-1212.	1.2	88
52	Cartilage-specific Î²-catenin signaling regulates chondrocyte maturation, generation of ossification centers, and perichondrial bone formation during skeletal development. Journal of Bone and Mineral Research, 2012, 27, 1680-1694.	3.1	116
53	Ski inhibits TGFâ€Î²/phosphoâ€Smad3 signaling and accelerates hypertrophic differentiation in chondrocytes. Journal of Cellular Biochemistry, 2012, 113, 2156-2166.	1.2	34
54	Impact of Smad3 loss of function on scarring and adhesion formation during tendon healing. Journal of Orthopaedic Research, 2011, 29, 684-693.	1.2	103

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55	Establishment of an index with increased sensitivity for assessing murine arthritis. Journal of Orthopaedic Research, 2011, 29, 1145-1151.	1.2	45
56	TNF is required for the induction but not the maintenance of compressionâ€induced BME signals in murine tail vertebrae: Limitations of antiâ€TNF therapy for degenerative disc disease. Journal of Orthopaedic Research, 2011, 29, 1367-1374.	1.2	5
57	BMP2, but not BMP4, is crucial for chondrocyte proliferation and maturation during endochondral bone development. Journal of Cell Science, 2011, 124, 3428-3440.	1.2	211
58	Teriparatide as a Chondroregenerative Therapy for Injury-Induced Osteoarthritis. Science Translational Medicine, 2011, 3, 101ra93.	5.8	145
59	Axin2 regulates chondrocyte maturation and axial skeletal development. Journal of Orthopaedic Research, 2010, 28, 89-95.	1.2	38
60	TAK1 regulates cartilage and joint development via the MAPK and BMP signaling pathways. Journal of Bone and Mineral Research, 2010, 25, 1784-1797.	3.1	79
61	Chronic axial compression of the mouse tail segment induces MRI bone marrow edema changes that correlate with increased marrow vasculature and cellularity. Journal of Orthopaedic Research, 2010, 28, 1220-1228.	1.2	12
62	RBPjÎº-dependent Notch signaling regulates mesenchymal progenitor cell proliferation and differentiation during skeletal development. Development (Cambridge), 2010, 137, 1461-1471.	1.2	154
63	Efficacy of colistinâ€impregnated beads to prevent multidrugâ€resistant <i>A. baumannii</i> implantâ€associated osteomyelitis. Journal of Orthopaedic Research, 2009, 27, 1008-1015.	1.2	32
64	Mechanism of shortened bones in mucopolysaccharidosis VII. Molecular Genetics and Metabolism, 2009, 97, 202-211.	0.5	61
65	Suppression of CXCL12 production by bone marrow osteoblasts is a common and critical pathway for cytokine-induced mobilization. Blood, 2009, 114, 1331-1339.	0.6	211
66	Notch signaling maintains bone marrow mesenchymal progenitors by suppressing osteoblast differentiation. Nature Medicine, 2008, 14, 306-314.	15.2	532
67	An FGFâ€“WNT gene regulatory network controls lung mesenchyme development. Developmental Biology, 2008, 319, 426-436.	0.9	127
68	Rac1 Activation Controls Nuclear Localization of Î²-catenin during Canonical Wnt Signaling. Cell, 2008, 133, 340-353.	13.5	433
69	NOTCH1 Regulates Osteoclastogenesis Directly in Osteoclast Precursors and Indirectly via Osteoblast Lineage Cells. Journal of Biological Chemistry, 2008, 283, 6509-6518.	1.6	202
70	Regulation of chondrogenesis and chondrocyte differentiation by stress. Journal of Clinical Investigation, 2008, 118, 429-438.	3.9	194
71	Tamoxifen-inducible gene deletion reveals a distinct cell type associated with trabecular bone, and direct regulation of PTHrP expression and chondrocyte morphology by Ihh in growth region cartilage. Developmental Biology, 2007, 308, 93-105.	0.9	97
72	Suppression of CXCL12 Production by Bone Marrow Osteoblasts Is a Common and Critical Pathway for Cytokine-Induced Mobilization.. Blood, 2007, 110, 220-220.	0.6	18

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73	Ihh controls cartilage development by antagonizing Gli3, but requires additional effectors to regulate osteoblast and vascular development. Development (Cambridge), 2005, 132, 4339-4351.	1.2	172
74	EXT1 regulates chondrocyte proliferation and differentiation during endochondral bone development. Bone, 2005, 36, 379-386.	1.4	62
75	Sequential roles of Hedgehog and Wnt signaling in osteoblast development. Development (Cambridge), 2005, 132, 49-60.	1.2	593
76	An Integrated Physical Map of 8q22â€“q24: Use in Positional Cloning and Deletion Analysis of Langerâ€“Giedion Syndrome. Genomics, 2001, 71, 192-199.	1.3	18