

Matthew J Hilton

List of Publications by Year in descending order

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76
papers

5,422
citations

117625

34
h-index

82547

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. <i>Stem Cell Research and Therapy</i> , 2022, 13, 37.	5.5	1
2	Hypertrophic chondrocytes serve as a reservoir for marrow-associated skeletal stem and progenitor cells, osteoblasts, and adipocytes during skeletal development. <i>ELife</i> , 2022, 11, .	6.0	28
3	Identification of distinct non-myogenic skeletal-muscle-resident mesenchymal cell populations. <i>Cell Reports</i> , 2022, 39, 110785.	6.4	23
4	Magic angle effect on diffusion tensor imaging in ligament and brain. <i>Magnetic Resonance Imaging</i> , 2022, 92, 243-250.	1.8	2
5	Effect of surface topography on in vitro osteoblast function and mechanical performance of <sc>3D</sc> printed titanium. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 1792-1802.	4.0	9
6	Hypoxia depletes contaminating CD45+ hematopoietic cells from murine bone marrow stromal cell (BMSC) cultures: Methods for BMSC culture purification. <i>Stem Cell Research</i> , 2021, 53, 102317.	0.7	5
7	Whole-Exome Sequencing of Radiation-Induced Thymic Lymphoma in Mouse Models Identifies Notch1 Activation as a Driver of p53 Wild-Type Lymphoma. <i>Cancer Research</i> , 2021, 81, 3777-3790.	0.9	10
8	STING suppresses bone cancer pain via immune and neuronal modulation. <i>Nature Communications</i> , 2021, 12, 4558.	12.8	50
9	Isolation and Culture of Murine Primary Chondrocytes: Costal and Growth Plate Cartilage. <i>Methods in Molecular Biology</i> , 2021, 2230, 415-423.	0.9	5
10	Demineralized Murine Skeletal Histology. <i>Methods in Molecular Biology</i> , 2021, 2230, 283-302.	0.9	2
11	Whole Mount In Situ Hybridization in Murine Tissues. <i>Methods in Molecular Biology</i> , 2021, 2230, 367-376.	0.9	0
12	HES1 is a novel downstream modifier of the SHH-GLI3 Axis in the development of preaxial polydactyly. <i>PLoS Genetics</i> , 2021, 17, e1009982.	3.5	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 high-resolution diffusion imaging. <i>Magnetic Resonance in Medicine</i> , 2020, 84, 908-919.	3.0	13
16	PD-1 blockade inhibits osteoclast formation and murine bone cancer pain. <i>Journal of Clinical Investigation</i> , 2020, 130, 3603-3620.	8.2	90
17	Dysregulation of STAT3 signaling is associated with endplate-oriented herniations of the intervertebral disc in Adgrg6 mutant mice. <i>PLoS Genetics</i> , 2019, 15, e1008096.	3.5	24
18	Diffusion tractography of the rat knee at microscopic resolution. <i>Magnetic Resonance in Medicine</i> , 2019, 81, 3775-3786.	3.0	21

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19	Chondrocyte-Specific RUNX2 Overexpression Accelerates Post-traumatic Osteoarthritis Progression in Adult Mice. <i>Journal of Bone and Mineral Research</i> , 2019, 34, 1676-1689.	2.8	51
20	The CaV1.2 L-type calcium channel regulates bone homeostasis in the middle and inner ear. <i>Bone</i> , 2019, 125, 160-168.	2.9	19
21	Glutamine Metabolism Regulates Proliferation and Lineage Allocation in Skeletal Stem Cells. <i>Cell Metabolism</i> , 2019, 29, 966-978.e4.	16.2	170
22	Cell type-specific effects of Notch signaling activation on intervertebral discs: Implications for intervertebral disc degeneration. <i>Journal of Cellular Physiology</i> , 2018, 233, 5431-5440.	4.1	26
23	Intracellular biosynthesis of lipids and cholesterol by Scap and Insig in mesenchymal cells regulates long bone growth and chondrocyte homeostasis. <i>Development (Cambridge)</i> , 2018, 145, .	2.5	18
24	The Notch Ligand Jagged1 Regulates the Osteoblastic Lineage by Maintaining the Osteoprogenitor Pool. <i>Journal of Bone and Mineral Research</i> , 2017, 32, 1320-1331.	2.8	44
25	Increased Ca ²⁺ signaling through CaV1.2 promotes bone formation and prevents estrogen deficiency-induced bone loss. <i>JCI Insight</i> , 2017, 2, .	5.0	38
26	Daily oral consumption of hydrolyzed type 1 collagen is chondroprotective and anti-inflammatory in murine posttraumatic osteoarthritis. <i>PLoS ONE</i> , 2017, 12, e0174705.	2.5	38
27	HES factors regulate specific aspects of chondrogenesis and chondrocyte hypertrophy during cartilage development. <i>Journal of Cell Science</i> , 2016, 129, 2145-55.	2.0	24
28	Suppressive Effects of Insulin on Tumor Necrosis Factor-Dependent Early Osteoarthritic Changes Associated With Obesity and Type 2 Diabetes Mellitus. <i>Arthritis and Rheumatology</i> , 2016, 68, 1392-1402.	5.6	91
29	Use of Hes1 -GFP reporter mice to assess activity of the Hes1 promoter in bone cells under chronic inflammation. <i>Bone</i> , 2016, 90, 80-89.	2.9	9
30	Notch signaling indirectly promotes chondrocyte hypertrophy via regulation of BMP signaling and cell cycle arrest. <i>Scientific Reports</i> , 2016, 6, 25594.	3.3	26
31	CCN1 Regulates Chondrocyte Maturation and Cartilage Development. <i>Journal of Bone and Mineral Research</i> , 2016, 31, 549-559.	2.8	22
32	Notch signaling in postnatal joint chondrocytes, but not subchondral osteoblasts, is required for articular cartilage and joint maintenance. <i>Osteoarthritis and Cartilage</i> , 2016, 24, 740-751.	1.3	28
33	NOTCH signaling in skeletal progenitors is critical for fracture repair. <i>Journal of Clinical Investigation</i> , 2016, 126, 1471-1481.	8.2	96
34	HES factors regulate specific aspects of chondrogenesis and chondrocyte hypertrophy during cartilage development. <i>Development (Cambridge)</i> , 2016, 143, e1.1-e1.1.	2.5	1
35	Notch signaling controls chondrocyte hypertrophy via indirect regulation of Sox9. <i>Bone Research</i> , 2015, 3, 15021.	11.4	41
36	Transient gamma-secretase inhibition accelerates and enhances fracture repair likely via Notch signaling modulation. <i>Bone</i> , 2015, 73, 77-89.	2.9	21

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37	A dual role for NOTCH signaling in joint cartilage maintenance and osteoarthritis. <i>Science Signaling</i> , 2015, 8, ra71.	3.6	83
38	PTH Receptor Signaling in Osteoblasts Regulates Endochondral Vascularization in Maintenance of Postnatal Growth Plate. <i>Journal of Bone and Mineral Research</i> , 2015, 30, 309-317.	2.8	33
39	Delayed Fracture Healing and Increased Callus Adiposity in a C57BL/6J Murine Model of Obesity-Associated Type 2 Diabetes Mellitus. <i>PLoS ONE</i> , 2014, 9, e99656.	2.5	88
40	NOTCH-Mediated Maintenance and Expansion of Human Bone Marrow Stromal/Stem Cells: A Technology Designed for Orthopedic Regenerative Medicine. <i>Stem Cells Translational Medicine</i> , 2014, 3, 1456-1466.	3.3	33
41	Multiple hereditary exostoses (MHE): elucidating the pathogenesis of a rare skeletal disorder through interdisciplinary research. <i>Connective Tissue Research</i> , 2014, 55, 80-88.	2.3	21
42	The effect of mesenchymal stem cell sheets on structural allograft healing of critical sized femoral defects in mice. <i>Biomaterials</i> , 2014, 35, 2752-2759.	11.4	89
43	Demineralized Murine Skeletal Histology. <i>Methods in Molecular Biology</i> , 2014, 1130, 165-183.	0.9	10
44	Whole-Mount In Situ Hybridization on Murine Skeletogenic Tissues. <i>Methods in Molecular Biology</i> , 2014, 1130, 193-201.	0.9	4
45	Isolation and Culture of Murine Primary Chondrocytes. <i>Methods in Molecular Biology</i> , 2014, 1130, 267-277.	0.9	25
46	NOTCH inhibits osteoblast formation in inflammatory arthritis via noncanonical NF- κ B. <i>Journal of Clinical Investigation</i> , 2014, 124, 3200-3214.	8.2	67
47	RBPj ⁹ -Dependent Notch Signaling Is Required for Murine Articular Cartilage and Joint Maintenance. <i>Arthritis and Rheumatism</i> , 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. <i>Journal of Cell Science</i> , 2013, 126, 5704-13.	2.0	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. <i>Genesis</i> , 2013, 51, 667-675.	1.6	20
50	Engineering superficial zone features in tissue engineered cartilage. <i>Biotechnology and Bioengineering</i> , 2013, 110, 1476-1486.	3.3	24
51	Cartilage-specific RBPj ⁹ -dependent and -independent Notch signals regulate cartilage and bone development. <i>Development (Cambridge)</i> , 2012, 139, 1198-1212.	2.5	88
52	Cartilage-specific β -catenin signaling regulates chondrocyte maturation, generation of ossification centers, and perichondrial bone formation during skeletal development. <i>Journal of Bone and Mineral Research</i> , 2012, 27, 1680-1694.	2.8	116
53	Ski inhibits TGF β ¹ /phospho β Smad3 signaling and accelerates hypertrophic differentiation in chondrocytes. <i>Journal of Cellular Biochemistry</i> , 2012, 113, 2156-2166.	2.6	34
54	Impact of Smad3 loss of function on scarring and adhesion formation during tendon healing. <i>Journal of Orthopaedic Research</i> , 2011, 29, 684-693.	2.3	103

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55	Establishment of an index with increased sensitivity for assessing murine arthritis. <i>Journal of Orthopaedic Research</i> , 2011, 29, 1145-1151.	2.3	45
56	TNF is required for the induction but not the maintenance of compression-induced BME signals in murine tail vertebrae: Limitations of anti-TNF therapy for degenerative disc disease. <i>Journal of Orthopaedic Research</i> , 2011, 29, 1367-1374.	2.3	5
57	BMP2, but not BMP4, is crucial for chondrocyte proliferation and maturation during endochondral bone development. <i>Journal of Cell Science</i> , 2011, 124, 3428-3440.	2.0	211
58	Teriparatide as a Chondroregenerative Therapy for Injury-Induced Osteoarthritis. <i>Science Translational Medicine</i> , 2011, 3, 101ra93.	12.4	145
59	Axin2 regulates chondrocyte maturation and axial skeletal development. <i>Journal of Orthopaedic Research</i> , 2010, 28, 89-95.	2.3	38
60	TAK1 regulates cartilage and joint development via the MAPK and BMP signaling pathways. <i>Journal of Bone and Mineral Research</i> , 2010, 25, 1784-1797.	2.8	79
61	Chronic axial compression of the mouse tail segment induces MRI bone marrow edema changes that correlate with increased marrow vasculature and cellularity. <i>Journal of Orthopaedic Research</i> , 2010, 28, 1220-1228.	2.3	12
62	RBPj δ -dependent Notch signaling regulates mesenchymal progenitor cell proliferation and differentiation during skeletal development. <i>Development (Cambridge)</i> , 2010, 137, 1461-1471.	2.5	154
63	Efficacy of colistin-impregnated beads to prevent multidrug-resistant <i>A. baumannii</i> implant-associated osteomyelitis. <i>Journal of Orthopaedic Research</i> , 2009, 27, 1008-1015.	2.3	32
64	Mechanism of shortened bones in mucopolysaccharidosis VII. <i>Molecular Genetics and Metabolism</i> , 2009, 97, 202-211.	1.1	61
65	Suppression of CXCL12 production by bone marrow osteoblasts is a common and critical pathway for cytokine-induced mobilization. <i>Blood</i> , 2009, 114, 1331-1339.	1.4	211
66	Notch signaling maintains bone marrow mesenchymal progenitors by suppressing osteoblast differentiation. <i>Nature Medicine</i> , 2008, 14, 306-314.	30.7	532
67	An FGF-WNT gene regulatory network controls lung mesenchyme development. <i>Developmental Biology</i> , 2008, 319, 426-436.	2.0	127
68	Rac1 Activation Controls Nuclear Localization of β -catenin during Canonical Wnt Signaling. <i>Cell</i> , 2008, 133, 340-353.	28.9	433
69	NOTCH1 Regulates Osteoclastogenesis Directly in Osteoclast Precursors and Indirectly via Osteoblast Lineage Cells. <i>Journal of Biological Chemistry</i> , 2008, 283, 6509-6518.	3.4	202
70	Regulation of chondrogenesis and chondrocyte differentiation by stress. <i>Journal of Clinical Investigation</i> , 2008, 118, 429-438.	8.2	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. <i>Developmental Biology</i> , 2007, 308, 93-105.	2.0	97
72	Suppression of CXCL12 Production by Bone Marrow Osteoblasts Is a Common and Critical Pathway for Cytokine-Induced Mobilization.. <i>Blood</i> , 2007, 110, 220-220.	1.4	18

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73	lhh controls cartilage development by antagonizing Gli3, but requires additional effectors to regulate osteoblast and vascular development. <i>Development (Cambridge)</i> , 2005, 132, 4339-4351.	2.5	172
74	EXT1 regulates chondrocyte proliferation and differentiation during endochondral bone development. <i>Bone</i> , 2005, 36, 379-386.	2.9	62
75	Sequential roles of Hedgehog and Wnt signaling in osteoblast development. <i>Development (Cambridge)</i> , 2005, 132, 49-60.	2.5	593
76	An Integrated Physical Map of 8q22-q24: Use in Positional Cloning and Deletion Analysis of Langer-Giedion Syndrome. <i>Genomics</i> , 2001, 71, 192-199.	2.9	18