Aaron W James

List of Publications by Year
in descending order

135 papers	6,897 citations	71102 41 h-index	66911 78 g-index
142 all docs	142 docs citations	142 times ranked	8652 citing authors

#	Article	IF	Citations
1	A Review of the Clinical Side Effects of Bone Morphogenetic Protein-2. Tissue Engineering - Part B: Reviews, 2016, 22, 284-297.	4.8	741
2	Review of Signaling Pathways Governing MSC Osteogenic and Adipogenic Differentiation. Scientifica, 2013, 2013, 1-17.	1.7	374
3	Heterotopic Ossification: Basic-Science Principles and Clinical Correlates. Journal of Bone and Joint Surgery - Series A, 2015, 97, 1101-1111.	3.0	280
4	Embryonic origin and Hox status determine progenitor cell fate during adult bone regeneration. Development (Cambridge), 2008, 135, 2845-2854.	2.5	279
5	Heterotopic Ossification: A Comprehensive Review. JBMR Plus, 2019, 3, e10172.	2.7	277
6	Human Adipose Derived Stromal Cells Heal Critical Size Mouse Calvarial Defects. PLoS ONE, 2010, 5, e11177.	2.5	255
7	Natural history of mesenchymal stem cells, from vessel walls to culture vessels. Cellular and Molecular Life Sciences, 2014, 71, 1353-1374.	5.4	231
8	Brief Review of Models of Ectopic Bone Formation. Stem Cells and Development, 2012, 21, 655-667.	2.1	168
9	Perivascular Stem Cells: A Prospectively Purified Mesenchymal Stem Cell Population for Bone Tissue Engineering. Stem Cells Translational Medicine, 2012, 1, 510-519.	3.3	147
10	CD105 Protein Depletion Enhances Human Adipose-derived Stromal Cell Osteogenesis through Reduction of Transforming Growth Factor Î²1 (TGF-Î²1) Signaling. Journal of Biological Chemistry, 2011, 286, 39497-39509.	3.4	144
11	Sonic Hedgehog Influences the Balance of Osteogenesis and Adipogenesis in Mouse Adipose-Derived Stromal Cells. Tissue Engineering - Part A, 2010, 16, 2605-2616.	3.1	132
12	Portomesenteric Venous Thrombosis After Laparoscopic Surgery. Archives of Surgery, 2009, 144, 520.	2.2	131
13	Fracture repair requires TrkA signaling by skeletal sensory nerves. Journal of Clinical Investigation, 2019, 129, 5137-5150.	8.2	122
14	An Abundant Perivascular Source of Stem Cells for Bone Tissue Engineering. Stem Cells Translational Medicine, 2012, 1, 673-684.	3.3	112
15	Malignant Peripheral Nerve Sheath Tumor. Surgical Oncology Clinics of North America, 2016, 25, 789-802.	1.5	109
16	Five Decades Later, Are Mesenchymal Stem Cells Still Relevant?. Frontiers in Bioengineering and Biotechnology, 2020, 8, 148.	4.1	109
17	Tendon and Ligament Healing and Current Approaches to Tendon and Ligament Regeneration. Journal of Orthopaedic Research, 2020, 38, 7-12.	2.3	108
18	Regulation of heterotopic ossification byÂmonocytes in a mouse model of aberrant wound healing. Nature Communications, 2020, 11, 722.	12.8	104

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19	Regulation of Human Adipose-Derived Stromal Cell Osteogenic Differentiation by Insulin-Like Growth Factor-1 and Platelet-Derived Growth Factor-Î±. Plastic and Reconstructive Surgery, 2010, 126, 41-52.	1.4	95
20	A review of hedgehog signaling in cranial bone development. Frontiers in Physiology, 2013, 4, 61.	2.8	94
21	NELL-1 in the treatment of osteoporotic bone loss. Nature Communications, 2015, 6, 7362.	12.8	93
22	Dura Mater Stimulates Human Adipose-Derived Stromal Cells to Undergo Bone Formation in Mouse Calvarial Defects. Stem Cells, 2011, 29, 1241-1255.	3.2	92
23	Effective molecular targeting of CDK4/6 and IGF-1R in a rare <i>FUS-ERG</i> fusion <i>CDKN2A</i>-deletion doxorubicin-resistant Ewing's sarcoma patient-derived orthotopic xenograft (PDOX) nude-mouse model. Oncotarget, 2016, 7, 47556-47564.	1.8	91
24	Human Perivascular Stem Cells Show Enhanced Osteogenesis and Vasculogenesis with Nel-Like Molecule I Protein. Tissue Engineering - Part A, 2013, 19, 1386-1397.	3.1	77
25	Additive Effects of Sonic Hedgehog and Nell-1 Signaling in Osteogenic Versus Adipogenic Differentiation of Human Adipose-Derived Stromal Cells. Stem Cells and Development, 2012, 21, 2170-2178.	2.1	73
26	Differential Effects of TGF-Î²1 and TGF-Î²3 on Chondrogenesis in Posterofrontal Cranial Sutureâ€“Derived Mesenchymal Cells In Vitro. Plastic and Reconstructive Surgery, 2009, 123, 31-43.	1.4	67
27	Human perivascular stem cell-derived extracellular vesicles mediate bone repair. ELife, 2019, 8, .	6.0	65
28	BMP2-Induced Inflammation Can Be Suppressed by the Osteoinductive Growth Factor NELL-1. Tissue Engineering - Part A, 2013, 19, 2390-2401.	3.1	64
29	Relative contributions of adipose-resident CD146+ pericytes and CD34+ adventitial progenitor cells in bone tissue engineering. Npj Regenerative Medicine, 2019, 4, 1.	5.2	62
30	Pulsed Direct Current Electric Fields Enhance Osteogenesis in Adipose-Derived Stromal Cells. Tissue Engineering - Part A, 2010, 16, 917-931.	3.1	61
31	Novel Wnt Regulator NEL-Like Molecule-1 Antagonizes Adipogenesis and Augments Osteogenesis Induced by Bone Morphogenetic Protein 2. American Journal of Pathology, 2016, 186, 419-434.	3.8	59
32	Deleterious Effects of Freezing on Osteogenic Differentiation of Human Adipose-Derived Stromal Cells In Vitro and In Vivo. Stem Cells and Development, 2011, 20, 427-439.	2.1	55
33	The Nell-1 Growth Factor Stimulates Bone Formation by Purified Human Perivascular Cells. Tissue Engineering - Part A, 2011, 17, 2497-2509.	3.1	54
34	Human Perivascular Stem Cell-Based Bone Graft Substitute Induces Rat Spinal Fusion. Stem Cells Translational Medicine, 2014, 3, 1231-1241.	3.3	54
35	Estrogen/Estrogen Receptor Alpha Signaling in Mouse Posterofrontal Cranial Suture Fusion. PLoS ONE, 2009, 4, e7120.	2.5	54
36	A new function of Nell-1 protein in repressing adipogenic differentiation. Biochemical and Biophysical Research Communications, 2011, 411, 126-131.	2.1	53

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37	Stem cell technology for bone regeneration: current status and potential applications. Stem Cells and Cloning: Advances and Applications, 2015, 8, 39.	2.3	53
38	BMP-2-induced bone formation and neural inflammation. Journal of Orthopaedics, 2017, 14, 252-256.	1.3	51
39	Differences in Osteogenic Differentiation of Adipose-Derived Stromal Cells from Murine, Canine, and Human Sources In Vitro and In Vivo. Plastic and Reconstructive Surgery, 2011, 128, 373-386.	1.4	50
40	Proliferation, Osteogenic Differentiation, and FGF-2 Modulation of Posterofrontal/Sagittal Sutureâ€“Derived Mesenchymal Cells In Vitro. Plastic and Reconstructive Surgery, 2008, 122, 53-63.	1.4	49
41	Current Trends in Bone Tissue Engineering. BioMed Research International, 2014, 2014, 1-5.	1.9	44
42	Brief Report: Human Perivascular Stem Cells andNel-Like Protein-1 Synergistically Enhance Spinal Fusion in Osteoporotic Rats. Stem Cells, 2015, 33, 3158-3163.	3.2	44
43	NELLâ€1 promotes cell adhesion and differentiation via integrinÎ²1. Journal of Cellular Biochemistry, 2012, 113, 3620-3628.	2.6	43
44	NELL-1 Promotes Cartilage Regeneration in an <i>In Vivo</i> Rabbit Model. Tissue Engineering - Part A, 2012, 18, 252-261.	3.1	43
45	A Neurotrophic Mechanism Directs Sensory Nerve Transit in Cranial Bone. Cell Reports, 2020, 31, 107696.	6.4	42
46	Immobilization after injury alters extracellular matrix and stem cell fate. Journal of Clinical Investigation, 2020, 130, 5444-5460.	8.2	42
47	DOOR syndrome: Clinical report, literature review and discussion of natural history. American Journal of Medical Genetics, Part A, 2007, 143A, 2821-2831.	1.2	40
48	Acute Skeletal Injury Is Necessary for Human Adipose-Derived Stromal Cellâ€“Mediated Calvarial Regeneration. Plastic and Reconstructive Surgery, 2011, 127, 1118-1129.	1.4	38
49	Retinoic Acid Enhances Osteogenesis in Cranial Sutureâ€“Derived Mesenchymal Cells: Potential Mechanisms of Retinoid-Induced Craniosynostosis. Plastic and Reconstructive Surgery, 2010, 125, 1352-1361.	1.4	37
50	Fibromodulin reduces scar formation in adult cutaneous wounds by eliciting a fetal-like phenotype. Signal Transduction and Targeted Therapy, 2017, 2, .	17.1	37
51	Mesenchymal VEGFA induces aberrant differentiation in heterotopic ossification. Bone Research, 2019, 7, 36.	11.4	37
52	NELL-1 increases pre-osteoblast mineralization using both phosphate transporter Pit1 and Pit2. Biochemical and Biophysical Research Communications, 2012, 422, 351-357.	2.1	36
53	NGF-TrkA signaling dictates neural ingrowth and aberrant osteochondral differentiation after soft tissue trauma. Nature Communications, 2021, 12, 4939.	12.8	36
54	NELL-1 based demineralized bone graft promotes rat spine fusion as compared to commercially available BMP-2 product. Journal of Orthopaedic Science, 2013, 18, 646-657.	1.1	32

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55	Perivascular Mesenchymal Progenitors for Bone Regeneration. Journal of Orthopaedic Research, 2019, 37, 1221-1228.	2.3	30
56	PDGFRÎ± marks distinct perivascular populations with different osteogenic potential within adipose tissue. Stem Cells, 2020, 38, 276-290.	3.2	30
57	Use of Human Perivascular Stem Cells for Bone Regeneration. Journal of Visualized Experiments, 2012, , e2952.	0.3	29
58	Pericytes for the treatment of orthopedic conditions. , 2017, 171, 93-103.		29
59	CD10 expression identifies a subset of human perivascular progenitor cells with high proliferation and calcification potentials. Stem Cells, 2020, 38, 261-275.	3.2	29
60	NGF-p75 signaling coordinates skeletal cell migration during bone repair. Science Advances, 2022, 8, eabl5716.	10.3	29
61	Vascular patterning in human heterotopic ossification. Human Pathology, 2017, 63, 165-170.	2.0	28
62	Analysis of Bone-Cartilage-Stromal Progenitor Populations in Trauma Induced and Genetic Models of Heterotopic Ossification. Stem Cells, 2016, 34, 1692-1701.	3.2	27
63	Calvarial Cleidocraniodysplasia-Like Defects With ENU-Induced Nell-1 Deficiency. Journal of Craniofacial Surgery, 2012, 23, 61-66.	0.7	26
64	Pericyte Antigens in Perivascular Soft Tissue Tumors. International Journal of Surgical Pathology, 2015, 23, 638-648.	0.8	26
65	Spatial transcriptomics reveals a role for sensory nerves in preserving cranial suture patency through modulation of BMP/TGF-Î² signaling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	26
66	Comparison of skeletal and soft tissue pericytes identifies CXCR4+ bone forming mural cells in human tissues. Bone Research, 2020, 8, 22.	11.4	25
67	From pericytes to perivascular tumours: correlation between pathology, stem cell biology, and tissue engineering. International Orthopaedics, 2014, 38, 1819-1824.	1.9	24
68	Calvarial Defect Healing Induced by Small Molecule Smoothened Agonist. Tissue Engineering - Part A, 2016, 22, 1357-1366.	3.1	23
69	Isolation and characterization of canine perivascular stem/stromal cells for bone tissue engineering. PLoS ONE, 2017, 12, e0177308.	2.5	23
70	NELL-1 Injection Maintains Long-Bone Quantity and Quality in an Ovariectomy-Induced Osteoporotic Senile Rat Model. Tissue Engineering - Part A, 2013, 19, 426-436.	3.1	22
71	The pericyte antigen RGS5 in perivascular soft tissue tumors. Human Pathology, 2016, 47, 121-131.	2.0	22
72	Combining Smoothened Agonist and NEL-Like Protein-1 Enhances Bone Healing. Plastic and Reconstructive Surgery, 2017, 139, 1385-1396.	1.4	22

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73	Early Immunomodulatory Effects of Implanted Human Perivascular Stromal Cells During Bone Formation. Tissue Engineering - Part A, 2018, 24, 448-457.	3.1	22
74	NELL-1-dependent mineralisation of Saos-2 human osteosarcoma cells is mediated via c-Jun N-terminal kinase pathway activation. International Orthopaedics, 2012, 36, 2181-2187.	1.9	20
75	Vertebral Implantation of NELL-1 Enhances Bone Formation in an Osteoporotic Sheep Model. Tissue Engineering - Part A, 2016, 22, 840-849.	3.1	20
76	Effects of WNT3A and WNT16 on the Osteogenic and Adipogenic Differentiation of Perivascular Stem/Stromal Cells. Tissue Engineering - Part A, 2018, 24, 68-80.	3.1	20
77	PDGFRÎ± reporter activity identifies periosteal progenitor cells critical for bone formation and fracture repair. Bone Research, 2022, 10, 7.	11.4	20
78	Human perivascular stem cells prevent bone graft resorption in osteoporotic contexts by inhibiting osteoclast formation. Stem Cells Translational Medicine, 2020, 9, 1617-1630.	3.3	19
79	Development of a Biomaterial Scaffold Integrated with Osteoinductive Oxysterol Liposomes to Enhance Hedgehog Signaling and Bone Repair. Molecular Pharmaceutics, 2021, 18, 1677-1689.	4.6	19
80	NELL-1 induces Sca-1+ mesenchymal progenitor cell expansion in models of bone maintenance and repair. JCI Insight, 2017, 2, .	5.0	18
81	Paracrine Interaction between Adipose-Derived Stromal Cells and Cranial Sutureâ€"Derived Mesenchymal Cells. Plastic and Reconstructive Surgery, 2010, 126, 806-821.	1.4	17
82	Perivascular Fibro-Adipogenic Progenitor Tracing during Post-Traumatic Osteoarthritis. American Journal of Pathology, 2020, 190, 1909-1920.	3.8	17
83	Systemic DKK1 neutralization enhances human adipose-derived stem cell mediated bone repair. Stem Cells Translational Medicine, 2021, 10, 610-622.	3.3	17
84	WISP-1 drives bone formation at the expense of fat formation in human perivascular stem cells. Scientific Reports, 2018, 8, 15618.	3.3	16
85	Lentiviral Delivery of PPARÎ³ shRNA Alters the Balance of Osteogenesis and Adipogenesis, Improving Bone Microarchitecture. Tissue Engineering - Part A, 2014, 20, 2699-2710.	3.1	14
86	Lysosomal protein surface expression discriminates fat- from bone-forming human mesenchymal precursor cells. ELife, 2020, 9, .	6.0	14
87	Blood Vessel Resident Human Stem Cells in Health and Disease. Stem Cells Translational Medicine, 2022, 11, 35-43.	3.3	14
88	Cyclophilin A (CypA) Plays Dual Roles in Regulation of Bone Anabolism and Resorption. Scientific Reports, 2016, 6, 22378.	3.3	13
89	NELL1 Regulates the Matrisome to Promote Osteosarcoma Progression. Cancer Research, 2022, 82, 2734-2747.	0.9	13
90	Coincident liposarcoma, carcinoid and gastrointestinal stromal tumor complicating type 1 neurofibromatosis: Case report and literature review. Journal of Orthopaedics, 2015, 12, S111-S116.	1.3	12

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91	Bizarre parosteal osteochondromatous proliferation: 16 Cases with a focus on histologic variability. Journal of Orthopaedics, 2018, 15, 138-142.	1.3	12
92	Pericytes for Therapeutic Bone Repair. Advances in Experimental Medicine and Biology, 2018, 1109, 21-32.	1.6	12
93	Endogenous CCN family member WISP1 inhibits trauma-induced heterotopic ossification. JCI Insight, 2020, 5, .	5.0	12
94	Neuron-to-vessel signaling is a required feature of aberrant stem cell commitment after soft tissue trauma. Bone Research, 2022, 10, .	11.4	12
95	NELL-1 expression in benign and malignant bone tumors. Biochemical and Biophysical Research Communications, 2015, 460, 368-374.	2.1	11
96	Pericytic mimicry in well-differentiated liposarcoma/atypical lipomatous tumor. Human Pathology, 2016, 54, 92-99.	2.0	11
97	Real-Time Three-Dimensional Echocardiography: Characterization of Cardiac Anatomy and Functionâ€"Current Clinical Applications and Literature Review Update. BioResearch Open Access, 2017, 6, 15-18.	2.6	11
98	Bulloughâ€™s bump: unusual protuberant fibro-osseous tumor of the temporal bone. Case report. Journal of Neurosurgery: Pediatrics, 2018, 21, 107-111.	1.3	11
99	Pericytes in Sarcomas and Other Mesenchymal Tumors. Advances in Experimental Medicine and Biology, 2019, 1147, 109-124.	1.6	11
100	Anti-DKK1 Enhances the Early Osteogenic Differentiation of Human Adipose-Derived Stem/Stromal Cells. Stem Cells and Development, 2020, 29, 1007-1015.	2.1	11
101	Diagnostically Challenging Epithelioid Soft Tissue Tumors. Surgical Pathology Clinics, 2015, 8, 309-329.	1.7	10
102	Plateletâ€derived growth factor receptorâ€Î² (PDGFRÎ²) lineage tracing highlights perivascular cell to myofibroblast transdifferentiation during postâ€traumatic osteoarthritis. Journal of Orthopaedic Research, 2020, 38, 2484-2494.	2.3	9
103	Boneâ€forming perivascular cells: Cellular heterogeneity and use for tissue repair. Stem Cells, 2021, 39, 1427-1434.	3.2	9
104	Differential Vascularity in Genetic and Nonhereditary Heterotopic Ossification. International Journal of Surgical Pathology, 2019, 27, 859-867.	0.8	8
105	Comparison of Human Tissue Microarray to Human Pericyte Transcriptome Yields Novel Perivascular Cell Markers. Stem Cells and Development, 2019, 28, 1214-1223.	2.1	8
106	NELL-1 expression in tumors of cartilage. Journal of Orthopaedics, 2015, 12, S223-S229.	1.3	7
107	Pericyte antigens in angiomyolipoma and PEComa family tumors. Medical Oncology, 2015, 32, 210.	2.5	7
108	Sclerostin expression in skeletal sarcomas. Human Pathology, 2016, 58, 24-34.	2.0	7

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109	Clinicopathologic Analysis of Chondroblastoma in Adults: A Single-Institution Case Series. International Journal of Surgical Pathology, 2021, 29, 120-128.	0.8	7
110	Divergent effects of distinct perivascular cell subsets for intraâ€articular cell therapy in posttraumatic osteoarthritis. Journal of Orthopaedic Research, 2021, 39, 2388-2397.	2.3	7
111	Skeletogenic Capacity of Human Perivascular Stem Cells Obtained Via Magnetic-Activated Cell Sorting. Tissue Engineering - Part A, 2019, 25, 1658-1666.	3.1	6
112	WNT16 induces proliferation and osteogenic differentiation of human perivascular stem cells. Journal of Orthopaedics, 2018, 15, 854-857.	1.3	5
113	Chondromyxoid Fibroma of the Pelvis: Institutional Case Series With a Focus on Distinctive Features. International Journal of Surgical Pathology, 2019, 27, 352-359.	0.8	5
114	Administration of TGF-ÃŸ Inhibitor Mitigates Radiation-induced Fibrosis in a Mouse Model. Clinical Orthopaedics and Related Research, 2021, 479, 468-474.	1.5	5
115	NELL-1 in Genome-Wide Association Studies across Human Diseases. American Journal of Pathology, 2022, 192, 395-405.	3.8	5
116	High Resolution X-Ray: A Reliable Approach for Quantifying Osteoporosis in a Rodent Model. BioResearch Open Access, 2014, 3, 192-196.	2.6	4
117	Clavicular and meningeal alveolar soft part sarcoma: An unusual case and literature review. Journal of Orthopaedics, 2014, 11, 48-53.	1.3	4
118	Frontal Bone Healing Is Sensitive to Wnt Signaling Inhibition via Lentiviral-Encoded Beta-Catenin Short Hairpin RNA. Tissue Engineering - Part A, 2018, 24, 1742-1752.	3.1	4
119	Overlapping features of rapidly progressive osteoarthrosis and Charcot arthropathy. Journal of Orthopaedics, 2019, 16, 260-264.	1.3	4
120	The WNT7A/WNT7B/GPR124/RECK signaling module plays an essential role in mammalian limb development. Development (Cambridge), 2022, 149, .	2.5	4
121	Acetabular Reaming Is a Reliable Model to Produce and Characterize Periarticular Heterotopic Ossification of the Hip. Stem Cells Translational Medicine, 0, , .	3.3	4
122	Lineage-Specific Wnt Reporter Elucidates Mesenchymal Wnt Signaling during Bone Repair. American Journal of Pathology, 2018, 188, 2155-2163.	3.8	3
123	Assessing the Bone-Forming Potential of Pericytes. Methods in Molecular Biology, 2021, 2235, 127-137.	0.9	3
124	Bone Tissue Engineering and Regeneration. BioMed Research International, 2014, 2014, 1-2.	1.9	2
125	An unusual karyotype in leiomyoma: Case report and literature review. Journal of Orthopaedics, 2015, 12, S251-S254.	1.3	2
126	An unusual complex karyotype in myopericytoma. Journal of Orthopaedics, 2015, 12, 58-62.	1.3	2

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127	Ang-1 and Ang-2 expression in angiomyolipoma and PEComa family tumors. Journal of Orthopaedics, 2017, 14, 154-160.	1.3	2
128	Ang-2 but not Ang-1 expression in perivascular soft tissue tumors. Journal of Orthopaedics, 2017, 14, 147-153.	1.3	2
129	Age dependent effects of NELL-1 isoforms on bone marrow stromal cells. Journal of Orthopaedics, 2019, 16, 175-178.	1.3	2
130	Variation in Osteogenic Differentiation Capacities of Adiposederived Stromal Cells by Anatomic Depot. International Journal of Orthopaedics (Hong Kong), 2016, 3, 549-556.	0.1	2
131	Abnormal karyotypes in osteochondroma: Case series and literature review. Journal of Orthopaedics, 2015, 12, 70-74.	1.3	1
132	Cytogenetics of melanoma: a review. Journal of the Association of Genetic Technologists, 2014, 40, 209-18.	0.1	1
133	Pericytic mimicry (extravascular migratory metastasis) in neoplasiaâ€"reply. Human Pathology, 2017, 63, 218.	2.0	0
134	Functional Heterogeneity of Perivascular Precursor Cells. Current Tissue Microenvironment Reports, 2020, 1, 183-186.	3.2	0
135	Pharmacological inhibition of DKK1 promotes spine fusion in an ovariectomized rat model. Bone, 2022, 162, 116456.	2.9	0