James A Martin

List of Publications by Year in descending order

108 papers	5,837 citations	81743 39 h-index	76769 74 g-index
110 all docs	110 docs citations	110 times ranked	6113 citing authors

#	Article	IF	Citations
1	HPLC-UV Method Validation for Amobarbital and Pharmaceutical Stability Evaluation When Dispersed in a Hyaluronic Acid Hydrogel: A New Concept for Post-Traumatic Osteoarthritis Prevention. Journal of Pharmaceutical Sciences, 2022, 111, 1379-1390.	1.6	1
2	Intra-Articular Adeno-Associated Virus-Mediated Proteoglycan 4 Gene Therapy for Preventing Posttraumatic Osteoarthritis. Human Gene Therapy, 2022, 33, 529-540.	1.4	9
3	Early OA Following Synovial Joint Fracture. , 2022, , 103-119.		0
4	Objective evaluation of chondrocyte density & cloning after joint injury using convolutional neural networks. Journal of Orthopaedic Research, 2022, , .	1.2	3
5	Targeting oxidative stress with amobarbital to prevent intervertebral disc degeneration: Part I. in vitro and ex vivo studies. Spine Journal, 2021, 21, 1021-1030.	0.6	20
6	Migrating Progenitor Cells Derived From Injured Cartilage Surface Respond to Damage-Associated Molecular Patterns. Cartilage, 2021, , 194760352110495.	1.4	5
7	Sulfasalazine Resolves Joint Stiffness in a Rabbit Model of Arthrofibrosis. Journal of Orthopaedic Research, 2020, 38, 629-638.	1.2	9
8	Association of chemokine expression in anterior cruciate ligament deficient knee with patient characteristics: Implications for post-traumatic osteoarthritis. Knee, 2020, 27, 36-44.	0.8	5
9	Targeting Cell Contractile Forces: A Novel Minimally Invasive Treatment Strategy for Fibrosis. Annals of Biomedical Engineering, 2020, 48, 1850-1862.	1.3	3
10	Tissue Engineering for the Temporomandibular Joint. Advanced Healthcare Materials, 2019, 8, e1801236.	3.9	65
11	Combining ultrasound and intratumoral administration of doxorubicin-loaded microspheres to enhance tumor cell killing. International Journal of Pharmaceutics, 2018, 539, 139-146.	2.6	15
12	Targeting mitochondrial responses to intra-articular fracture to prevent posttraumatic osteoarthritis. Science Translational Medicine, 2018, 10, .	5.8	69
13	Ultrasound-Mediated Microbubble Destruction Suppresses Melanoma Tumor Growth. Ultrasound in Medicine and Biology, 2018, 44, 831-839.	0.7	11
14	Ultrasound-triggered PLGA microparticle destruction and degradation for controlled delivery of local cytotoxicity and drug release. International Journal of Biological Macromolecules, 2018, 106, 1211-1217.	3.6	18
15	Effects of knockout of the receptor for advanced glycation endâ€products on bone mineral density and synovitis in mice with intraâ€articular fractures. Journal of Orthopaedic Research, 2018, 36, 2439-2449.	1.2	6
16	Timeâ€dependent loss of mitochondrial function precedes progressive histologic cartilage degeneration in a rabbit meniscal destabilization model. Journal of Orthopaedic Research, 2017, 35, 590-599.	1.2	30
17	Regeneration of bone using nanoplex delivery of FGF-2 and BMP-2 genes in diaphyseal long bone radial defects in a diabetic rabbit model. Journal of Controlled Release, 2017, 248, 53-59.	4.8	66
18	Chondrogenic progenitor cells promote vascular endothelial growth factor expression through stromal-derived factor-1. Osteoarthritis and Cartilage, 2017, 25, 742-749.	0.6	22

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19	Characteristics of meniscus progenitor cells migrated from injured meniscus. Journal of Orthopaedic Research, 2017, 35, 1966-1972.	1.2	37
20	Complementary models reveal cellular responses to contact stresses that contribute to postâ€traumatic osteoarthritis. Journal of Orthopaedic Research, 2017, 35, 515-523.	1.2	15
21	Mathematics as a conduit for translational research in postâ€traumatic osteoarthritis. Journal of Orthopaedic Research, 2017, 35, 566-572.	1.2	7
22	Differential Effects of Superoxide Dismutase Mimetics after Mechanical Overload of Articular Cartilage. Antioxidants, 2017, 6, 98.	2.2	15
23	DAMPs Synergize with Cytokines or Fibronectin Fragment on Inducing Chondrolysis but Lose Effect When Acting Alone. Mediators of Inflammation, 2017, 2017, 1-12.	1.4	11
24	Modeling the effect of blunt impact on mitochondrial function in cartilage: implications for development of osteoarthritis. PeerJ, 2017, 5, e3468.	0.9	5
25	Linking Cellular and Mechanical Processes in Articular Cartilage Lesion Formation: A Mathematical Model. Frontiers in Bioengineering and Biotechnology, 2016, 4, 80.	2.0	10
26	Injurious Loading of Articular Cartilage Compromises Chondrocyte Respiratory Function. Arthritis and Rheumatology, 2016, 68, 662-671.	2.9	62
27	Three-dimensional bioprinting using self-assembling scalable scaffold-free â€œtissue strandsâ€•as a new bioink. Scientific Reports, 2016, 6, 28714.	1.6	204
28	Enhanced phagocytic capacity endows chondrogenic progenitor cells with a novel scavenger function within injured cartilage. Osteoarthritis and Cartilage, 2016, 24, 1648-1655.	0.6	21
29	The use of autologous adult, allogenic juvenile, and combined juvenileâ€“adult cartilage fragments for the repair of chondral defects. Knee Surgery, Sports Traumatology, Arthroscopy, 2016, 24, 3988-3996.	2.3	21
30	A Validated Model of the Pro- and Anti-Inflammatory Cytokine Balancing Act in Articular Cartilage Lesion Formation. Frontiers in Bioengineering and Biotechnology, 2015, 3, 25.	2.0	8
31	Use of Recombinant Human Stromal Cellâ€“Derived Factor 1Î±â€“Loaded Fibrin/Hyaluronic Acid Hydrogel Networks to Achieve Functional Repair of Fullâ€Thickness Bovine Articular Cartilage Via Homing of Chondrogenic Progenitor Cells. Arthritis and Rheumatology, 2015, 67, 1274-1285.	2.9	74
32	Why Do Osteochondral Allografts Survive?. American Journal of Sports Medicine, 2015, 43, 2459-2468.	1.9	9
33	Potential Mechanisms of PTA: Oxidative Stress. , 2015, , 211-219.		4
34	Gene expression profiles reveal that chondrogenic progenitor cells and synovial cells are closely related. Journal of Orthopaedic Research, 2014, 32, 981-988.	1.2	34
35	Modeling and simulation of the effects of cyclic loading on articular cartilage lesion formation. International Journal for Numerical Methods in Biomedical Engineering, 2014, 30, 927-941.	1.0	9
36	Inhibition of cell-matrix adhesions prevents cartilage chondrocyte death following impact injury. Journal of Orthopaedic Research, 2014, 32, 448-454.	1.2	27

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37	A single blunt impact on cartilage promotes fibronectin fragmentation and upregulates cartilage degrading stromelysinâ€1/matrix metalloproteinaseâ€3 in a bovine ex vivo model. Journal of Orthopaedic Research, 2014, 32, 811-818.	1.2	34
38	Effect of Short-Term Enzymatic Treatment on Cell Migration and Cartilage Regeneration:In VitroOrgan Culture of Bovine Articular Cartilage. Tissue Engineering - Part A, 2014, 20, 1807-1814.	1.6	39
39	Single cell sorting identifies progenitor cell population from full thickness bovine articular cartilage. Osteoarthritis and Cartilage, 2014, 22, 1318-1326.	0.6	45
40	Low-Intensity Pulsed Ultrasound Promotes Chondrogenic Progenitor Cell Migration via Focal Adhesion Kinase Pathway. Ultrasound in Medicine and Biology, 2014, 40, 1177-1186.	0.7	53
41	The Roles of Mechanical Stresses in the Pathogenesis of Osteoarthritis. Cartilage, 2013, 4, 286-294.	1.4	175
42	Comparison of T1Ï, dGEMRIC, and Quantitative T2 MRI in Preoperative ACL Rupture Patients. Academic Radiology, 2013, 20, 99-107.	1.3	39
43	Biocompatibility and preclinical feasibility tests of a temperatureâ€sensitive hydrogel for the purpose of surgical wound pain control and cartilage repair. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101, 1508-1515.	1.6	27
44	Mechanical stress and ATP synthesis are coupled by mitochondrial oxidants in articular cartilage. Journal of Orthopaedic Research, 2013, 31, 191-196.	1.2	53
45	Evaluation of Cell Viability and Functionality in Vessel-like Bioprintable Cell-Laden Tubular Channels. Journal of Biomechanical Engineering, 2013, 135, 91011.	0.6	218
46	Organ culture stability of the intervertebral disc: Rat versus rabbit. Journal of Orthopaedic Research, 2013, 31, 838-846.	1.2	16
47	Cartilageâ€onâ€cartilage versus metalâ€onâ€cartilage impact characteristics and responses. Journal of Orthopaedic Research, 2013, 31, 887-893.	1.2	12
48	Comparative digital cartilage histology for human and common osteoarthritis models. Orthopedic Research and Reviews, 2013, 2013, 13.	0.7	31
49	Imaging biopsy composition at ACL reconstruction. Orthopedic Research and Reviews, 2013, 5, 35.	0.7	4
50	The Role of Osteocytes in Targeted Bone Remodeling: A Mathematical Model. PLoS ONE, 2013, 8, e63884.	1.1	57
51	Oxidative Conditioning and Treatment for Osteoarthritis. , 2013, , 311-332.		0
52	Frequency Content of Cartilage Impact Force Signal Reflects Acute Histologic Structural Damage. Cartilage, 2012, 3, 314-322.	1.4	11
53	Chondrogenic progenitor cells respond to cartilage injury. Arthritis and Rheumatism, 2012, 64, 3626-3637.	6.7	184
54	Reaction-Diffusion-Delay Model for EPO/TNF-Î± Interaction in articular cartilage lesion abatement. Biology Direct, 2012, 7, 9.	1.9	17

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55	Mitochondrial electron transport and glycolysis are coupled in articular cartilage. Osteoarthritis and Cartilage, 2012, 20, 323-329.	0.6	66
56	Cytoskeletal dissolution blocks oxidant release and cell death in injured cartilage. Journal of Orthopaedic Research, 2012, 30, 593-598.	1.2	41
57	Towards a new spatial representation of bone remodeling. Mathematical Biosciences and Engineering, 2012, 9, 281-295.	1.0	10
58	Articular Cartilage Biology. , 2012, , 685-692.		2
59	The Effect of Irrigation Solution at Different Temperatures on Articular Cartilage Metabolism. Arthroscopy - Journal of Arthroscopic and Related Surgery, 2011, 27, 526-531.	1.3	27
60	Cocultures of Adult and Juvenile Chondrocytes Compared With Adult and Juvenile Chondral Fragments. American Journal of Sports Medicine, 2011, 39, 2355-2361.	1.9	69
61	Human Chondrosarcoma Cells Acquire an Epithelial-Like Gene Expression Pattern via an Epigenetic Switch: Evidence for Mesenchymal-Epithelial Transition during Sarcomagenesis. Sarcoma, 2011, 2011, 1-11.	0.7	36
62	Selection of reference genes for normalization of quantitative real-time PCR in organ culture of the rat and rabbit intervertebral disc. BMC Research Notes, 2011, 4, 162.	0.6	48
63	Organâ€level histological and biomechanical responses from localized osteoarticular injury in the rabbit knee. Journal of Orthopaedic Research, 2011, 29, 340-346.	1.2	17
64	Postâ€traumatic osteoarthritis: Improved understanding and opportunities for early intervention. Journal of Orthopaedic Research, 2011, 29, 802-809.	1.2	511
65	Synthesis of a novel photopolymerized nanocomposite hydrogel for treatment of acute mechanical damage to cartilage. Acta Biomaterialia, 2011, 7, 3094-3100.	4.1	25
66	Distribution and Progression of Chondrocyte Damage in a Whole-Organ Model of Human Ankle Intra-Articular Fracture. Journal of Bone and Joint Surgery - Series A, 2011, 93, 533-539.	1.4	76
67	Instability Dependency of Osteoarthritis Development in a Rabbit Model of Graded Anterior Cruciate Ligament Transection. Journal of Bone and Joint Surgery - Series A, 2011, 93, 640-647.	1.4	65
68	Integrating carthage-specific T1rho MRI into knee clinic diagnostic imaging. Iowa orthopaedic journal, The, 2011, 31, 99-109.	0.5	11
69	Nanog maintains human chondrocyte phenotype and function in vitro. Journal of Orthopaedic Research, 2010, 28, 516-521.	1.2	5
70	Oxidant conditioning protects cartilage from mechanically induced damage. Journal of Orthopaedic Research, 2010, 28, 914-920.	1.2	51
71	Rotenone prevents impactâ€induced chondrocyte death. Journal of Orthopaedic Research, 2010, 28, 1057-1063.	1.2	105
72	The Potential of Human Allogeneic Juvenile Chondrocytes for Restoration of Articular Cartilage. American Journal of Sports Medicine, 2010, 38, 1324-1333.	1.9	236

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73	N-Acetylcysteine Inhibits Post-Impact Chondrocyte Death in Osteochondral Explants. Journal of Bone and Joint Surgery - Series A, 2009, 91, 1890-1897.	1.4	114
74	Automated Objective Scoring of Histologically Apparent Cartilage Degeneration Using a Custom Image Analysis Program. Journal of Orthopaedic Research, 2009, 27, 522-528.	1.2	38
75	Cartilage abnormalities associated with defects of chondrocytic primary cilia in Bardetâ€Biedl syndrome mutant mice. Journal of Orthopaedic Research, 2009, 27, 1093-1099.	1.2	41
76	Sliding Direction Dependence of Polyethylene Wear for Metal Counterface Traverse of Severe Scratches. Journal of Biomechanical Engineering, 2008, 130, 051006.	0.6	8
77	Fluorescent Viability Stains Overestimate Chondrocyte Viability in Osteoarticular Allografts. American Journal of Sports Medicine, 2007, 35, 1817-1823.	1.9	26
78	Impact of Aging on Rat Bone Marrow-Derived Stem Cell Chondrogenesis. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2007, 62, 136-148.	1.7	80
79	Arthroscopic lens distortion correction applied to dynamic cartilage loading. Iowa orthopaedic journal, The, 2007, 27, 52-7.	0.5	5
80	Intrinsic radiation resistance in human chondrosarcoma cells. Biochemical and Biophysical Research Communications, 2006, 346, 379-385.	1.0	57
81	Rat Spinal Motion Segment in Organ Culture: A Cell Viability Study. Spine, 2006, 31, 1291-1297.	1.0	25
82	Osteoarthritisâ˜†. Advanced Drug Delivery Reviews, 2006, 58, 150-167.	6.6	252
83	Loading and boundary condition influences in a poroelastic finite element model of cartilage stresses in a triaxial compression bioreactor. Iowa orthopaedic journal, The, 2006, 26, 5-16.	0.5	3
84	Perspectives on chondrocyte mechanobiology and osteoarthritis. Biorheology, 2006, 43, 603-9.	1.2	89
85	Opiate regulation of IL-1Î² and TNF-Î± in cultured human articular chondrocytes. Biochemical and Biophysical Research Communications, 2005, 333, 1295-1299.	1.0	10
86	Effects of Oxidative Damage and Telomerase Activity on Human Articular Cartilage Chondrocyte Senescence. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2004, 59, B324-B336.	1.7	105
87	Cartilage responses to a novel triaxial mechanostimulatory culture system. Journal of Biomechanics, 2004, 37, 689-695.	0.9	17
88	Chondrocyte Senescence, Joint Loading and Osteoarthritis. Clinical Orthopaedics and Related Research, 2004, 427, S96-S103.	0.7	172
89	Telomerase Reverse Transcriptase Subunit Expression Is Associated with Chondrosarcoma Malignancy. Clinical Orthopaedics and Related Research, 2004, 426, 117-124.	0.7	16
90	Sports and osteoarthritis. Current Opinion in Rheumatology, 2004, 16, 634-639.	2.0	90

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91	Oxygen effects on senescence in chondrocytes and mesenchymal stem cells: consequences for tissue engineering. Iowa orthopaedic journal, The, 2004, 24, 15-20.	0.5	43
92	Post-traumatic osteoarthritis: the role of accelerated chondrocyte senescence. Biorheology, 2004, 41, 479-91.	1.2	110
93	Effect of dynamic hydrostatic pressure on rabbit intervertebral disc cells. Journal of Orthopaedic Research, 2003, 21, 597-603.	1.2	103
94	THE ROLE OF CHONDROCYTE SENESCENCE IN THE PATHOGENESIS OF OSTEOARTHRITIS AND IN LIMITING CARTILAGE REPAIR. Journal of Bone and Joint Surgery - Series A, 2003, 85, 106-110.	1.4	253
95	Effects of Telomerase and Viral Oncogene Expression on the In Vitro Growth of Human Chondrocytes. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2002, 57, B48-B53.	1.7	25
96	Aging, articular cartilage chondrocyte senescence and osteoarthritis. Biogerontology, 2002, 3, 257-264.	2.0	297
97	Cartilage extracellular matrix metabolism differs in serum and synovial fluid. Cytotechnology, 2002, 24, 139-143.	0.7	4
98	Chondrocyte senescence and telomere regulation: implications in cartilage aging and cancer (a brief) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.5	5
99	Malignant transformation in human chondrosarcoma cells supported by telomerase activation and tumor suppressor inactivation. Cell Growth & Differentiation: the Molecular Biology Journal of the American Association for Cancer Research, 2002, 13, 397-407.	0.8	6
100	Matrix composition in opossum esophagus. Digestive Diseases and Sciences, 2001, 46, 968-975.	1.1	13
101	Telomere Erosion and Senescence in Human Articular Cartilage Chondrocytes. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2001, 56, B172-B179.	1.7	190
102	Reversible Suppression of in Vitro Biomineralization by Activation of Protein Kinase A. Journal of Biological Chemistry, 2000, 275, 11082-11091.	1.6	39
103	Spatial and temporal expression of CD44 isoforms in the developing and growing joints of the rat limb. Journal of Orthopaedic Research, 1998, 16, 100-103.	1.2	6
104	Effects of fibronectin on articular cartilage chondrocyte proteoglycan synthesis and response to insulin-like growth factor-I. Journal of Orthopaedic Research, 1998, 16, 752-757.	1.2	34
105	Age-related decline in chondrocyte response to insulin-like growth factor-I: The role of growth factor binding proteins. Journal of Orthopaedic Research, 1997, 15, 491-498.	1.2	171
106	CD44 in Growing Normal and Neoplastic Rat Cartilage^a^b. Annals of the New York Academy of Sciences, 1996, 785, 333-336.	1.8	6
107	Articular Cartilage Aging and Degeneration. Sports Medicine and Arthroscopy Review, 1996, 4, 263-275.	1.0	36
108	Force-Bioreactor for Assessing Pharmacological Therapies for Mechanobiological Targets. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	1