

Jerry C. Hu

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

111
papers

4,885
citations

33
h-index

68
g-index

113
ext. papers

5,962
ext. citations

6.9
avg, IF

6.11
L-index

#	Paper	IF	Citations
111	Stiffness- and Bioactive Factor-Mediated Protection of Self-Assembled Cartilage against Macrophage Challenge in a Novel Co-Culture System.. <i>Cartilage</i> , 2022 , 13, 19476035221081466	3	1
110	The functionality and translatability of neocartilage constructs are improved with the combination of fluid-induced shear stress and bioactive factors.. <i>FASEB Journal</i> , 2022 , 36, e22225	0.9	
109	Yucatan Minipig Knee Meniscus Regional Biomechanics and Biochemical Structure Support its Suitability as a Large Animal Model for Translational Research.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022 , 10, 844416	5.8	0
108	Methodology to Quantify Collagen Subtypes and Crosslinks: Application in Minipig Cartilages. <i>Cartilage</i> , 2021 , 19476035211060508	3	2
107	The effect of neonatal, juvenile, and adult donors on rejuvenated neocartilage functional properties. <i>Tissue Engineering - Part A</i> , 2021 ,	3.9	1
106	Rejuvenation of extensively passaged human chondrocytes to engineer functional articular cartilage. <i>Biofabrication</i> , 2021 ,	10.5	5
105	Cartilage Assessment Requires a Surface Characterization Protocol: Roughness, Friction, and Function. <i>Tissue Engineering - Part C: Methods</i> , 2021 , 27, 276-286	2.9	4
104	Knee orthopedics as a template for the temporomandibular joint. <i>Cell Reports Medicine</i> , 2021 , 2, 10024118		1
103	A Tribological Comparison of Facet Joint, Sacroiliac Joint, and Knee Cartilage in the Yucatan Minipig. <i>Cartilage</i> , 2021 , 19476035211021906	3	1
102	Nondestructive testing of native and tissue-engineered medical products: adding numbers to pictures. <i>Trends in Biotechnology</i> , 2021 ,	15.1	1
101	Characterization of Adult and Neonatal Articular Cartilage From the Equine Stifle. <i>Journal of Equine Veterinary Science</i> , 2021 , 96, 103294	1.2	
100	Isolation and characterization of porcine macrophages and their inflammatory and fusion responses in different stiffness environments. <i>Biomaterials Science</i> , 2021 , 9, 7851-7861	7.4	1
99	Diagnostic Arthroscopy of the Minipig Stifle (Knee) for Translational Large Animal Research. <i>Arthroscopy Techniques</i> , 2021 , 10, e297-e301	1.7	0
98	Engineering large, anatomically shaped osteochondral constructs with robust interfacial shear properties. <i>Npj Regenerative Medicine</i> , 2021 , 6, 42	15.8	1
97	Vibrometry as a noncontact alternative to dynamic and viscoelastic mechanical testing in cartilage.. <i>Journal of the Royal Society Interface</i> , 2021 , 18, 20210765	4.1	2
96	Adult Dermal Stem Cells for Scaffold-Free Cartilage Tissue Engineering: Exploration of Strategies. <i>Tissue Engineering - Part C: Methods</i> , 2020 , 26, 598-607	2.9	2
95	Engineering self-assembled neomenisci through combination of matrix augmentation and directional remodeling. <i>Acta Biomaterialia</i> , 2020 , 109, 73-81	10.8	10

94	Chondroitinase ABC Enhances Integration of Self-Assembled Articular Cartilage, but Its Dosage Needs to Be Moderated Based on Neocartilage Maturity. <i>Cartilage</i> , 2020 , 1947603520918653	3	7
93	The tribology of cartilage: Mechanisms, experimental techniques, and relevance to translational tissue engineering. <i>Clinical Biomechanics</i> , 2020 , 79, 104880	2.2	12
92	Shear stress induced by fluid flow produces improvements in tissue-engineered cartilage. <i>Biofabrication</i> , 2020 , 12, 045010	10.5	4
91	Collagen: quantification, biomechanics, and role of minor subtypes in cartilage. <i>Nature Reviews Materials</i> , 2020 , 5, 730-747	73.3	30
90	Remaining Hurdles for Tissue-Engineering the Temporomandibular Joint Disc. <i>Trends in Molecular Medicine</i> , 2019 , 25, 241-256	11.5	11
89	Multimodal Label-Free Imaging for Detecting Maturation of Engineered Osteogenic Grafts. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 1956-1966	5.5	2
88	Toward tissue-engineering of nasal cartilages. <i>Acta Biomaterialia</i> , 2019 , 88, 42-56	10.8	23
87	Structure-function relationships of fetal ovine articular cartilage. <i>Acta Biomaterialia</i> , 2019 , 87, 235-244	10.8	4
86	Exogenous Lysyl Oxidase-Like 2 and Perfusion Culture Induce Collagen Crosslink Formation in Osteogenic Grafts. <i>Biotechnology Journal</i> , 2019 , 14, e1700763	5.6	4
85	Surgical and tissue engineering strategies for articular cartilage and meniscus repair. <i>Nature Reviews Rheumatology</i> , 2019 , 15, 550-570	8.1	178
84	Translating the application of transforming growth factor- β , chondroitinase-ABC, and lysyl oxidase-like 2 for mechanically robust tissue-engineered human neocartilage. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2019 , 13, 283-294	4.4	12
83	Non-destructive detection of matrix stabilization correlates with enhanced mechanical properties of self-assembled articular cartilage. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2019 , 13, 637-648	4.4	6
82	A Comparison of Bone Marrow and Cord Blood Mesenchymal Stem Cells for Cartilage Self-Assembly. <i>Tissue Engineering - Part A</i> , 2018 , 24, 1262-1272	3.9	18
81	Facet Joints of the Spine: Structure-Function Relationships, Problems and Treatments, and the Potential for Regeneration. <i>Annual Review of Biomedical Engineering</i> , 2018 , 20, 145-170	12	26
80	Biochemical and biomechanical characterisation of equine cervical facet joint cartilage. <i>Equine Veterinary Journal</i> , 2018 , 50, 800-808	2.4	4
79	Characterization of costal cartilage and its suitability as a cell source for articular cartilage tissue engineering. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018 , 12, 1163-1176	4.4	18
78	A Guide for Using Mechanical Stimulation to Enhance Tissue-Engineered Articular Cartilage Properties. <i>Tissue Engineering - Part B: Reviews</i> , 2018 , 24, 345-358	7.9	50
77	Using Costal Chondrocytes to Engineer Articular Cartilage with Applications of Passive Axial Compression and Bioactive Stimuli. <i>Tissue Engineering - Part A</i> , 2018 , 24, 516-526	3.9	15

76	Tissue engineering toward temporomandibular joint disc regeneration. <i>Science Translational Medicine</i> , 2018 , 10,	17.5	45
75	Detection of glycosaminoglycan loss in articular cartilage by fluorescence lifetime imaging. <i>Journal of Biomedical Optics</i> , 2018 , 23, 1-8	3.5	10
74	Nondestructive assessment of collagen hydrogel cross-linking using time-resolved autofluorescence imaging. <i>Journal of Biomedical Optics</i> , 2018 , 23, 1-9	3.5	17
73	Considerations for translation of tissue engineered fibrocartilage from bench to bedside. <i>Journal of Biomechanical Engineering</i> , 2018 ,	2.1	6
72	Nondestructive fluorescence lifetime imaging and time-resolved fluorescence spectroscopy detect cartilage matrix depletion and correlate with mechanical properties. <i>European Cells and Materials</i> , 2018 , 36, 30-43	4.3	10
71	Overcoming Challenges in Engineering Large, Scaffold-Free Neocartilage with Functional Properties. <i>Tissue Engineering - Part A</i> , 2018 , 24, 1652-1662	3.9	11
70	Functional self-assembled neocartilage as part of a biphasic osteochondral construct. <i>PLoS ONE</i> , 2018 , 13, e0195261	3.7	12
69	Engineering biomechanically functional neocartilage derived from expanded articular chondrocytes through the manipulation of cell-seeding density and dexamethasone concentration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017 , 11, 2323-2332	4.4	12
68	A Modified Hydroxyproline Assay Based on Hydrochloric Acid in Ehrlich's Solution Accurately Measures Tissue Collagen Content. <i>Tissue Engineering - Part C: Methods</i> , 2017 , 23, 243-250	2.9	79
67	Tension stimulation drives tissue formation in scaffold-free systems. <i>Nature Materials</i> , 2017 , 16, 864-873	2.7	48
66	Characterization of facet joint cartilage properties in the human and interspecies comparisons. <i>Acta Biomaterialia</i> , 2017 , 54, 367-376	10.8	11
65	The Self-Assembling Process and Applications in Tissue Engineering. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2017 , 7,	5.4	38
64	Functional properties of native and tissue-engineered cartilage toward understanding the pathogenesis of chondral lesions at the knee: A bovine cadaveric study. <i>Journal of Orthopaedic Research</i> , 2017 , 35, 2452-2464	3.8	8
63	Temporal development of near-native functional properties and correlations with qMRI in self-assembling fibrocartilage treated with exogenous lysyl oxidase homolog 2. <i>Acta Biomaterialia</i> , 2017 , 64, 29-40	10.8	5
62	Tissue engineering potential of human dermis-isolated adult stem cells from multiple anatomical locations. <i>PLoS ONE</i> , 2017 , 12, e0182531	3.7	7
61	The Yucatan Minipig Temporomandibular Joint Disc Structure-Function Relationships Support Its Suitability for Human Comparative Studies. <i>Tissue Engineering - Part C: Methods</i> , 2017 , 23, 700-709	2.9	19
60	Ammonium-Chloride-Potassium Lysing Buffer Treatment of Fully Differentiated Cells Increases Cell Purity and Resulting Neotissue Functional Properties. <i>Tissue Engineering - Part C: Methods</i> , 2016 , 22, 895-903	2.9	13
59	Articular cartilage tissue engineering: the role of signaling molecules. <i>Cellular and Molecular Life Sciences</i> , 2016 , 73, 1173-94	10.3	49

58	Initiation of Chondrocyte Self-Assembly Requires an Intact Cytoskeletal Network. <i>Tissue Engineering - Part A</i> , 2016 , 22, 318-25	3.9	12
57	Cell-based tissue engineering strategies used in the clinical repair of articular cartilage. <i>Biomaterials</i> , 2016 , 98, 1-22	15.6	242
56	Tendon and ligament as novel cell sources for engineering the knee meniscus. <i>Osteoarthritis and Cartilage</i> , 2016 , 24, 2126-2134	6.2	6
55	Recent Tissue Engineering Advances for the Treatment of Temporomandibular Joint Disorders. <i>Current Osteoporosis Reports</i> , 2016 , 14, 269-279	5.4	33
54	Effects of passage number and post-expansion aggregate culture on tissue engineered, self-assembled neocartilage. <i>Acta Biomaterialia</i> , 2016 , 43, 150-159	10.8	11
53	Harnessing biomechanics to develop cartilage regeneration strategies. <i>Journal of Biomechanical Engineering</i> , 2015 , 137, 020901	2.1	28
52	Thyroid hormones enhance the biomechanical functionality of scaffold-free neocartilage. <i>Arthritis Research and Therapy</i> , 2015 , 17, 28	5.7	8
51	Neocartilage integration in temporomandibular joint discs: physical and enzymatic methods. <i>Journal of the Royal Society Interface</i> , 2015 , 12,	4.1	12
50	Concise Review: Human Dermis as an Autologous Source of Stem Cells for Tissue Engineering and Regenerative Medicine. <i>Stem Cells Translational Medicine</i> , 2015 , 4, 1187-98	6.9	25
49	Digoxin and adenosine triphosphate enhance the functional properties of tissue-engineered cartilage. <i>Tissue Engineering - Part A</i> , 2015 , 21, 884-94	3.9	8
48	Critical seeding density improves the properties and translatability of self-assembling anatomically shaped knee menisci. <i>Acta Biomaterialia</i> , 2015 , 11, 173-82	10.8	7
47	Biomechanical evaluation of suture-holding properties of native and tissue-engineered articular cartilage. <i>Biomechanics and Modeling in Mechanobiology</i> , 2015 , 14, 73-81	3.8	17
46	Emergence of scaffold-free approaches for tissue engineering musculoskeletal cartilages. <i>Annals of Biomedical Engineering</i> , 2015 , 43, 543-54	4.7	83
45	TGF- β , GDF-5, and BMP-2 stimulation induces chondrogenesis in expanded human articular chondrocytes and marrow-derived stromal cells. <i>Stem Cells</i> , 2015 , 33, 762-73	5.8	107
44	Advances in tissue engineering through stem cell-based co-culture. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015 , 9, 488-503	4.4	111
43	Repair and tissue engineering techniques for articular cartilage. <i>Nature Reviews Rheumatology</i> , 2015 , 11, 21-34	8.1	663
42	Engineering a fibrocartilage spectrum through modulation of aggregate redifferentiation. <i>Cell Transplantation</i> , 2015 , 24, 235-45	4	22
41	Clinical translation of stem cells: insight for cartilage therapies. <i>Critical Reviews in Biotechnology</i> , 2014 , 34, 89-100	9.4	23

40	Developing functional musculoskeletal tissues through hypoxia and lysyl oxidase-induced collagen cross-linking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, E4832-41	11.5	90
39	Topographic variations in biomechanical and biochemical properties in the ankle joint: an in vitro bovine study evaluating native and engineered cartilage. <i>Arthroscopy - Journal of Arthroscopic and Related Surgery</i> , 2014 , 30, 1317-26	5.4	8
38	Promoting increased mechanical properties of tissue engineered neocartilage via the application of hyperosmolarity and 4 β -phorbol 12,13-didecanoate (4 β DD). <i>Journal of Biomechanics</i> , 2014 , 47, 3712-8	2.9	8
37	Antigen removal for the production of biomechanically functional, xenogeneic tissue grafts. <i>Journal of Biomechanics</i> , 2014 , 47, 1987-96	2.9	39
36	Combined use of chondroitinase-ABC, TGF- β 1, and collagen crosslinking agent lysyl oxidase to engineer functional neotissues for fibrocartilage repair. <i>Biomaterials</i> , 2014 , 35, 6787-96	15.6	54
35	Cartilage tissue engineering using dermis isolated adult stem cells: the use of hypoxia during expansion versus chondrogenic differentiation. <i>PLoS ONE</i> , 2014 , 9, e98570	3.7	21
34	Building an anisotropic meniscus with zonal variations. <i>Tissue Engineering - Part A</i> , 2014 , 20, 294-302	3.9	21
33	Passive strain-induced matrix synthesis and organization in shape-specific, cartilaginous neotissues. <i>Tissue Engineering - Part A</i> , 2014 , 20, 3290-302	3.9	11
32	A chondroitinase-ABC and TGF- β 1 treatment regimen for enhancing the mechanical properties of tissue-engineered fibrocartilage. <i>Acta Biomaterialia</i> , 2013 , 9, 4626-34	10.8	45
31	Inducing articular cartilage phenotype in costochondral cells. <i>Arthritis Research and Therapy</i> , 2013 , 15, R214	5.7	15
30	Hypoxia-induced collagen crosslinking as a mechanism for enhancing mechanical properties of engineered articular cartilage. <i>Osteoarthritis and Cartilage</i> , 2013 , 21, 634-41	6.2	50
29	Engineering functional anisotropy in fibrocartilage neotissues. <i>Biomaterials</i> , 2013 , 34, 9980-9	15.6	41
28	Self-organization and the self-assembling process in tissue engineering. <i>Annual Review of Biomedical Engineering</i> , 2013 , 15, 115-36	12	131
27	A copper sulfate and hydroxylysine treatment regimen for enhancing collagen cross-linking and biomechanical properties in engineered neocartilage. <i>FASEB Journal</i> , 2013 , 27, 2421-30	0.9	43
26	Tensile characterization of porcine temporomandibular joint disc attachments. <i>Journal of Dental Research</i> , 2013 , 92, 753-8	8.1	21
25	Chondrogenically tuned expansion enhances the cartilaginous matrix-forming capabilities of primary, adult, leporine chondrocytes. <i>Cell Transplantation</i> , 2013 , 22, 331-40	4	17
24	Enhancing post-expansion chondrogenic potential of costochondral cells in self-assembled neocartilage. <i>PLoS ONE</i> , 2013 , 8, e56983	3.7	27
23	Induced collagen cross-links enhance cartilage integration. <i>PLoS ONE</i> , 2013 , 8, e60719	3.7	31

22	Mechanisms underlying the synergistic enhancement of self-assembled neocartilage treated with chondroitinase-ABC and TGF- β . <i>Biomaterials</i> , 2012 , 33, 3187-94	15.6	43
21	Unlike bone, cartilage regeneration remains elusive. <i>Science</i> , 2012 , 338, 917-21	33.3	694
20	Biomechanics-driven chondrogenesis: from embryo to adult. <i>FASEB Journal</i> , 2012 , 26, 3614-24	0.9	49
19	Nondestructive evaluation of tissue engineered articular cartilage using time-resolved fluorescence spectroscopy and ultrasound backscatter microscopy. <i>Tissue Engineering - Part C: Methods</i> , 2012 , 18, 215-26	2.9	25
18	A proposed model of naturally occurring osteoarthritis in the domestic rabbit. <i>Lab Animal</i> , 2011 , 41, 20-5.4		29
17	Bioengineering in the oral cavity: insights from articular cartilage tissue engineering. <i>International Journal of Oral and Maxillofacial Implants</i> , 2011 , 26 Suppl, 11-9; discussion 20-4	2.8	
16	Unique biomechanical interactions between myeloma cells and bone marrow stroma cells. <i>Progress in Biophysics and Molecular Biology</i> , 2010 , 103, 148-56	4.7	12
15	Intracellular Na(+) and Ca(2+) modulation increases the tensile properties of developing engineered articular cartilage. <i>Arthritis and Rheumatism</i> , 2010 , 62, 1097-107		34
14	Biomaterial effects in articular cartilage tissue engineering using polyglycolic acid, a novel marine origin biomaterial, IGF-I, and TGF-beta 1. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2009 , 223, 63-73	1.7	7
13	Mechanical characterization of differentiated human embryonic stem cells. <i>Journal of Biomechanical Engineering</i> , 2009 , 131, 061011	2.1	41
12	Articular Cartilage Tissue Engineering 2009 , 1, 1-182		34
11	The role of tissue engineering in articular cartilage repair and regeneration. <i>Critical Reviews in Biomedical Engineering</i> , 2009 , 37, 1-57	1.1	274
10	Matrix development in self-assembly of articular cartilage. <i>PLoS ONE</i> , 2008 , 3, e2795	3.7	111
9	Isolation and chondroinduction of a dermis-isolated, aggrecan-sensitive subpopulation with high chondrogenic potential. <i>Arthritis and Rheumatism</i> , 2007 , 56, 168-76		31
8	Self-assembly of fibrochondrocytes and chondrocytes for tissue engineering of the knee meniscus. <i>Tissue Engineering</i> , 2007 , 13, 939-46		58
7	The effects of intermittent hydrostatic pressure on self-assembled articular cartilage constructs. <i>Tissue Engineering</i> , 2006 , 12, 1337-44		86
6	A self-assembling process in articular cartilage tissue engineering. <i>Tissue Engineering</i> , 2006 , 12, 969-79		221
5	Chondrocytes from different zones exhibit characteristic differences in high density culture. <i>Connective Tissue Research</i> , 2006 , 47, 133-40	3.3	14

4	The Effects of Intermittent Hydrostatic Pressure on Self-Assembled Articular Cartilage Constructs. <i>Tissue Engineering</i> , 2006 , 060510114812001		2
3	Low-density cultures of bovine chondrocytes: effects of scaffold material and culture system. <i>Biomaterials</i> , 2005 , 26, 2001-12	15.6	59
2	Zonal and topographical differences in articular cartilage gene expression. <i>Journal of Orthopaedic Research</i> , 2004 , 22, 1182-7	3.8	98
1	Articular Cartilage		15