Ivan Martin

List of Publications by Year
in descending order

316 papers	25,661 citations	5896 81 h-index	8167 148 g-index
397 all docs	397 docs citations	397 times ranked	20501 citing authors

#	Article	IF	Citations
1	The role of bioreactors in tissue engineering. Trends in Biotechnology, 2004, 22, 80-86.	9.3	1,023
2	Silk matrix for tissue engineered anterior cruciate ligaments. Biomaterials, 2002, 23, 4131-4141.	11.4	791
3	Bioreactor cultivation conditions modulate the composition and mechanical properties of tissue-engineered cartilage. Journal of Orthopaedic Research, 1999, 17, 130-138.	2.3	664
4	Cell differentiation by mechanical stress. FASEB Journal, 2002, 16, 1-13.	0.5	561
5	Angiogenesis in Tissue Engineering: Breathing Life into Constructed Tissue Substitutes. Tissue Engineering, 2006, 12, 2093-2104.	4.6	513
6	Dynamic Cell Seeding of Polymer Scaffolds for Cartilage Tissue Engineering. Biotechnology Progress, 1998, 14, 193-202.	2.6	490
7	Mesenchymal stem versus stromal cells: International Society for Cell & Gene Therapy (ISCTÂ®) Mesenchymal Stromal Cell committee position statement on nomenclature. Cytotherapy, 2019, 21, 1019-1024.	0.7	466
8	Recapitulation of endochondral bone formation using human adult mesenchymal stem cells as a paradigm for developmental engineering. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7251-7256.	7.1	427
9	Chondrogenesis in a Cell-Polymer-Bioreactor System. Experimental Cell Research, 1998, 240, 58-65.	2.6	423
10	International Society for Cellular Therapy perspective on immune functional assays for mesenchymal stromal cells as potency release criterion for advanced phase clinical trials. Cytotherapy, 2016, 18, 151-159.	0.7	400
11	Specific growth factors during the expansion and redifferentiation of adult human articular chondrocytes enhance chondrogenesis and cartilaginous tissue formation in vitro. Journal of Cellular Biochemistry, 2001, 81, 368-377.	2.6	395
12	Oscillating perfusion of cell suspensions through three-dimensional scaffolds enhances cell seeding efficiency and uniformity. Biotechnology and Bioengineering, 2003, 84, 205-214.	3.3	394
13	Early detection of aging cartilage and osteoarthritis in mice and patient samples using atomic force microscopy. Nature Nanotechnology, 2009, 4, 186-192.	31.5	391
14	Fibroblast Growth Factor-2 Supports ex Vivo Expansion and Maintenance of Osteogenic Precursors from Human Bone Marrow*. Endocrinology, 1997, 138, 4456-4462.	2.8	387
15	Tissue engineering of cartilage in space. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 13885-13890.	7.1	385
16	Plasticity of clonal populations of dedifferentiated adult human articular chondrocytes. Arthritis and Rheumatism, 2003, 48, 1315-1325.	6.7	347
17	Age related changes in human articular chondrocyte yield, proliferation and post-expansion chondrogenic capacity. Osteoarthritis and Cartilage, 2004, 12, 476-484.	1.3	336
18	Osteochondral tissue engineering. Journal of Biomechanics, 2007, 40, 750-765.	2.1	330

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19	Quantitative analysis of gene expression in human articular cartilage from normal and osteoarthritic joints. Osteoarthritis and Cartilage, 2001, 9, 112-118.	1.3	319
20	Realâ€time quantitative RTâ€PCR analysis of human bone marrow stromal cells during osteogenic differentiation in vitro. Journal of Cellular Biochemistry, 2002, 85, 737-746.	2.6	317
21	Tissueâ€engineered composites for the repair of large osteochondral defects. Arthritis and Rheumatism, 2002, 46, 2524-2534.	6.7	295
22	Engineering of a functional bone organ through endochondral ossification. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3997-4002.	7.1	289
23	Threeâ€dimensional culture of melanoma cells profoundly affects gene expression profile: A high density oligonucleotide array study. Journal of Cellular Physiology, 2005, 204, 522-531.	4.1	285
24	Effects of bisphosphonates on proliferation and osteoblast differentiation of human bone marrow stromal cells. Biomaterials, 2005, 26, 6941-6949.	11.4	254
25	In vitro generation of osteochondral composites. Biomaterials, 2000, 21, 2599-2606.	11.4	246
26	Mammalian Chondrocytes Expanded in the Presence of Fibroblast Growth Factor 2 Maintain the Ability to Differentiate and Regenerate Three-Dimensional Cartilaginous Tissue. Experimental Cell Research, 1999, 253, 681-688.	2.6	242
27	Design of graded biomimetic osteochondral composite scaffolds. Biomaterials, 2008, 29, 3539-3546.	11.4	233
28	Enhanced chondrocyte proliferation and mesenchymal stromal cells chondrogenesis in coculture pellets mediate improved cartilage formation. Journal of Cellular Physiology, 2012, 227, 88-97.	4.1	219
29	Integration of engineered cartilage. Journal of Orthopaedic Research, 2001, 19, 1089-1097.	2.3	214
30	Nasal chondrocyte-based engineered autologous cartilage tissue for repair of articular cartilage defects: an observational first-in-human trial. Lancet, The, 2016, 388, 1985-1994.	13.7	214
31	Three-Dimensional Tissue Engineering of Hyaline Cartilage: Comparison of Adult Nasal and Articular Chondrocytes. Tissue Engineering, 2002, 8, 817-826.	4.6	206
32	Cartilage tissue engineering for degenerative joint diseaseâ˜†. Advanced Drug Delivery Reviews, 2006, 58, 300-322.	13.7	206
33	Advanced Bioreactor with Controlled Application of Multi-Dimensional Strain For Tissue Engineering. Journal of Biomechanical Engineering, 2002, 124, 742-749.	1.3	195
34	Macroporous polymer foams by hydrocarbon templating. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 1970-1975.	7.1	190
35	Visual Histological Grading System for the Evaluation of<i>in Vitro</i>â€“Generated Neocartilage. Tissue Engineering, 2006, 12, 2141-2149.	4.6	189
36	Threeâ€Dimensional Perfusion Culture of Human Adipose Tissueâ€Derived Endothelial and Osteoblastic Progenitors Generates Osteogenic Constructs with Intrinsic Vascularization Capacity. Stem Cells, 2007, 25, 1823-1829.	3.2	186

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37	Threeâ€Dimensional Perfusion Culture of Human Bone Marrow Cells and Generation of Osteoinductive Grafts. Stem Cells, 2005, 23, 1066-1072.	3.2	182
38	Enhanced cartilage tissue engineering by sequential exposure of chondrocytes to FGFâ€2 during 2D expansion and BMPâ€2 during 3D cultivation. Journal of Cellular Biochemistry, 2001, 83, 121-128.	2.6	181
39	Orderly osteochondral regeneration in a sheep model using a novel nanoâ€composite multilayered biomaterial. Journal of Orthopaedic Research, 2010, 28, 116-124.	2.3	177
40	Cell Yield, Proliferation, and Postexpansion Differentiation Capacity of Human Ear, Nasal, and Rib Chondrocytes. Tissue Engineering, 2004, 10, 762-770.	4.6	170
41	In vitro and in vivo evaluation of differentially demineralized cancellous bone scaffolds combined with human bone marrow stromal cells for tissue engineering. Biomaterials, 2005, 26, 3173-3185.	11.4	169
42	Engineered autologous cartilage tissue for nasal reconstruction after tumour resection: an observational first-in-human trial. Lancet, The, 2014, 384, 337-346.	13.7	163
43	Erodible Conducting Polymers for Potential Biomedical Applications. Angewandte Chemie - International Edition, 2002, 41, 141-144.	13.8	162
44	Dynamic compression of cartilage constructs engineered from expanded human articular chondrocytes. Biochemical and Biophysical Research Communications, 2003, 310, 580-588.	2.1	159
45	Micro- and Nanomechanical Analysis of Articular Cartilage byÂIndentation-Type Atomic Force Microscopy: Validation withÂaÂGel-Microfiber Composite. Biophysical Journal, 2010, 98, 2731-2740.	0.5	154
46	Method for Quantitative Analysis of Glycosaminoglycan Distribution in Cultured Natural and Engineered Cartilage. Annals of Biomedical Engineering, 1999, 27, 656-662.	2.5	151
47	Effects of scaffold composition and architecture on human nasal chondrocyte redifferentiation and cartilaginous matrix deposition. Biomaterials, 2005, 26, 2479-2489.	11.4	151
48	Immunomodulatory properties of mesenchymal stem cells: a review based on an interdisciplinary meeting held at the Kennedy Institute of Rheumatology Division, London, UK, 31 October 2005. Arthritis Research and Therapy, 2007, 9, 301.	3.5	150
49	Toward modeling the bone marrow niche using scaffold-based 3D culture systems. Biomaterials, 2011, 32, 321-329.	11.4	149
50	<i>In vitro</i> differentiation of chick embryo bone marrow stromal cells into cartilaginous and boneâ€like tissues. Journal of Orthopaedic Research, 1998, 16, 181-189.	2.3	142
51	The influence of the scaffold design on the distribution of adhering cells after perfusion cell seeding. Biomaterials, 2011, 32, 2878-2884.	11.4	141
52	Selective differentiation of mammalian bone marrow stromal cells cultured on three-dimensional polymer foams. Journal of Biomedical Materials Research Part B, 2001, 55, 229-235.	3.1	139
53	Tissue-engineered dermo-epidermal skin grafts prevascularized with adipose-derived cells. Biomaterials, 2014, 35, 5065-5078.	11.4	136
54	Tissue engineering strategies to study cartilage development, degeneration and regeneration. Advanced Drug Delivery Reviews, 2015, 84, 107-122.	13.7	134

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55	Frontiers in Tissue Engineering. Clinical Orthopaedics and Related Research, 1999, 367, S46-S58.	1.5	131
56	Hyperphysiological compression of articular cartilage induces an osteoarthritic phenotype in a cartilage-on-a-chip model. Nature Biomedical Engineering, 2019, 3, 545-557.	22.5	126
57	Challenges for mesenchymal stromal cell therapies. Science Translational Medicine, 2019, 11, .	12.4	126
58	Bioreactor-based roadmap for the translation of tissue engineering strategies into clinical products. Trends in Biotechnology, 2009, 27, 495-502.	9.3	125
59	A Nude Mouse Model for Human Bone Formation in Unloaded Conditions. Bone, 1998, 22, 131S-134S.	2.9	123
60	New dimensions in tumor immunology: what does 3D culture reveal?. Trends in Molecular Medicine, 2008, 14, 333-340.	6.7	122
61	Platelet autologous growth factors decrease the osteochondral regeneration capability of a collagen-hydroxyapatite scaffold in a sheep model. BMC Musculoskeletal Disorders, 2010, 11, 220.	1.9	120
62	The Multipotency of Luteinizing Granulosa Cells Collected from Mature Ovarian Follicles. Stem Cells, 2009, 27, 210-219.	3.2	119
63	Identification of markers to characterize and sort human articular chondrocytes with enhanced in vitro chondrogenic capacity. Arthritis and Rheumatism, 2007, 56, 586-595.	6.7	118
64	Meniscus repair and regeneration: review on current methods and research potential. , 2013, 26, 150-170.		118
65	Reconstruction of Extensive Long-Bone Defects in Sheep Using Porous Hydroxyapatite Sponges. Calcified Tissue International, 1999, 64, 83-90.	3.1	117
66	Enhancing the biological performance of synthetic polymeric materials byÂdecoration with engineered, decellularized extracellular matrix. Biomaterials, 2012, 33, 5085-5093.	11.4	112
67	Tissue Engineering for Total Meniscal Substitution: Animal Study in Sheep Model. Tissue Engineering - Part A, 2008, 14, 1067-1080.	3.1	108
68	Adult human neural crestâ€“derived cells for articular cartilage repair. Science Translational Medicine, 2014, 6, 251ra119.	12.4	108
69	Engineered cartilage generated by nasal chondrocytes is responsive to physical forces resembling joint loading. Arthritis and Rheumatism, 2008, 58, 197-208.	6.7	105
70	Towards an intraoperative engineering of osteogenic and vasculogenic grafts from the stromal vascular fraction of human adipose tissue. , 2010, 19, 127-135.		100
71	Tissue Engineering for Total Meniscal Substitution: Animal Study in Sheep Modelâ€"Results at 12 Months. Tissue Engineering - Part A, 2012, 18, 1573-1582.	3.1	99
72	In vitro biomimetic engineering of a human hematopoietic niche with functional properties. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E5688-E5695.	7.1	99

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73	Assessment of Nerve Damage Using a Novel Ultrasonic Device for Bone Cutting. Journal of Oral and Maxillofacial Surgery, 2008, 66, 593-596.	1.2	95
74	Engineering of large osteogenic grafts with rapid engraftment capacity using mesenchymal and endothelial progenitors from human adipose tissue. Biomaterials, 2011, 32, 5801-5809.	11.4	92
75	Tendon healing: an overview of physiology, biology, and pathology of tendon healing and systematic review of state of the art in tendon bioengineering. Knee Surgery, Sports Traumatology, Arthroscopy, 2015, 23, 2097-2105.	4.2	91
76	Magnetic nanocomposite hydrogels and static magnetic field stimulate the osteoblastic and vasculogenic profile of adipose-derived cells. Biomaterials, 2019, 223, 119468.	11.4	90
77	Differential cartilaginous tissue formation by human synovial membrane, fat pad, meniscus cells and articular chondrocytes. Osteoarthritis and Cartilage, 2007, 15, 48-58.	1.3	89
78	Computational evaluation of oxygen and shear stress distributions in 3D perfusion culture systems: Macro-scale and micro-structured models. Journal of Biomechanics, 2008, 41, 2918-2925.	2.1	88
79	The role of 3D structure and protein conformation on the innate andÂadaptive immune responses to silk-based biomaterials. Biomaterials, 2013, 34, 8161-8171.	11.4	88
80	Limited Acquisition of Chromosomal Aberrations in Human Adult Mesenchymal Stromal Cells. Cell Stem Cell, 2012, 10, 9-10.	11.1	87
81	FGFâ€2 enhances TGFâ€Î²1â€induced periosteal chondrogenesis. Journal of Orthopaedic Research, 2004, 22, 1114-1119.	2.3	86
82	Bioreactor-based engineering of osteochondral grafts: from model systems to tissue manufacturing. Journal of Bioscience and Bioengineering, 2005, 100, 489-494.	2.2	86
83	Multipotential nestin and Isl-1 positive mesenchymal stem cells isolated from human pancreatic islets. Biochemical and Biophysical Research Communications, 2006, 345, 1167-1176.	2.1	85
84	A 3D in vitro bone organ model using human progenitor cells. , 2011, 21, 445-458.		85
85	TGF-Î²-induced differentiation into myofibroblasts involves specific regulation of two MKL1 isoforms. Journal of Cell Science, 2014, 127, 1079-91.	2.0	82
86	Expansion of Human Mesenchymal Stromal Cells from Fresh Bone Marrow in a 3D Scaffold-Based System under Direct Perfusion. PLoS ONE, 2014, 9, e102359.	2.5	81
87	The regulation of expanded human nasal chondrocyte re-differentiation capacity by substrate composition and gas plasma surface modification. Biomaterials, 2006, 27, 1043-1053.	11.4	78
88	Fibroblast growth factor 2 and plateletâ€derived growth factor, but not platelet lysate, induce proliferationâ€dependent, functional class II major histocompatibility complex antigen in human mesenchymal stem cells. Arthritis and Rheumatism, 2010, 62, 3815-3825.	6.7	78
89	Anabolic and catabolic responses of human articular chondrocytes to varying oxygen percentages. Arthritis Research and Therapy, 2010, 12, R34.	3.5	78
90	â€œIn vitroâ€•3D models of tumor-immune system interaction. Advanced Drug Delivery Reviews, 2014, 79-80, 145-154.	13.7	78

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91	Osteogenic graft vascularization and bone resorption by VEGF-expressing human mesenchymal progenitors. Biomaterials, 2013, 34, 5025-5035.	11.4	77
92	Adipose tissueâ€derived progenitors for engineering osteogenic and vasculogenic grafts. Journal of Cellular Physiology, 2010, 225, 348-353.	4.1	76
93	High-Throughput Microfluidic Platform for 3D Cultures of Mesenchymal Stem Cells, Towards Engineering Developmental Processes. Scientific Reports, 2015, 5, 10288.	3.3	76
94	Multiple mechanisms underlie defective recognition of melanoma cells cultured in three-dimensional architectures by antigen-specific cytotoxic T lymphocytes. British Journal of Cancer, 2007, 96, 1072-1082.	6.4	75
95	Oriented lamellar silk fibrous scaffolds to drive cartilage matrix orientation: Towards annulus fibrosus tissue engineering. Acta Biomaterialia, 2012, 8, 3313-3325.	8.3	73
96	Three-Dimensional Cell Culture and Tissue Engineering in a T-CUP (Tissue Culture Under Perfusion). Tissue Engineering, 2007, 13, 2021-2028.	4.6	72
97	Potential and Bottlenecks of Bioreactors in 3D Cell Culture and Tissue Manufacturing. Advanced Materials, 2009, 21, 3352-3367.	21.0	72
98	Optimization of hyaluronic acid-tyramine/silk-fibroin composite hydrogels for cartilage tissue engineering and delivery of anti-inflammatory and anabolic drugs. Materials Science and Engineering C, 2021, 120, 111701.	7.3	72
99	Effects of in Vitro Preculture on in Vivo Development of Human Engineered Cartilage in an Ectopic Model. Tissue Engineering, 2005, 11, 1421-1428.	4.6	70
100	Response of Human Engineered Cartilage Based on Articular or Nasal Chondrocytes to Interleukin-1Î² and Low Oxygen. Tissue Engineering - Part A, 2012, 18, 362-372.	3.1	70
101	Enzymatic Digestion of Adult Human Articular Cartilage Yields a Small Fraction of the Total Available Cells. Connective Tissue Research, 2003, 44, 173-180.	2.3	69
102	Interleukin-1Î² modulates endochondral ossification by human adult bone marrow stromal cells. , 2012, 24, 224-236.		68
103	Nanoscale Engineering of Biomaterial Surfaces. Advanced Materials, 2007, 19, 553-557.	21.0	67
104	Bioreactor based engineering of large-scale human cartilage grafts for joint resurfacing. Biomaterials, 2010, 31, 8946-8952.	11.4	66
105	Ectopic bone formation by aggregated mesenchymal stem cells from bone marrow and adipose tissue: A comparative study. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e150-e158.	2.7	65
106	Expansion on specific substrates regulates the phenotype and differentiation capacity of human articular chondrocytes. Journal of Cellular Biochemistry, 2006, 98, 1140-1149.	2.6	64
107	Use of multicellular tumor spheroids to dissect endothelial cellâ€"tumor cell interactions: A role for Tâ€cadherin in tumor angiogenesis. FEBS Letters, 2007, 581, 4523-4528.	2.8	64
108	Tissue decellularization by activation of programmed cell death. Biomaterials, 2013, 34, 6099-6108.	11.4	64

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109	Prefabricated Engineered Bone Flaps: An Experimental Model of Tissue Reconstruction in Plastic Surgery. Plastic and Reconstructive Surgery, 1998, 101, 577-581.	1.4	63
110	Implantation of Stromal Vascular Fraction Progenitors at Bone Fracture Sites: From a Rat Model to a First-in-Man Study. Stem Cells, 2016, 34, 2956-2966.	3.2	63
111	Characterization of vasculogenic potential of human adipose-derived endothelial cells in a three-dimensional vascularized skin substitute. Pediatric Surgery International, 2016, 32, 17-27.	1.4	63
112	Validation of an Automated Procedure to Isolate Human Adipose Tissueâ€"Derived Cells by Using the Sepax^{Â®} Technology. Tissue Engineering - Part C: Methods, 2012, 18, 575-582.	2.1	62
113	Effects of Intersyringe Processing on Adipose Tissue and Its Cellular Components. Plastic and Reconstructive Surgery, 2015, 135, 1618-1628.	1.4	60
114	Engineering human cell-based, functionally integrated osteochondral grafts by biological bonding of engineered cartilage tissues to bony scaffolds. Biomaterials, 2010, 31, 2252-2259.	11.4	59
115	Bioreactor-engineered cancer tissue-like structures mimic phenotypes, gene expression profiles and drug resistance patterns observed â€œinÂ vivoâ€• Biomaterials, 2015, 62, 138-146.	11.4	59
116	Mesenchymal stromal cells induce epithelialâ€toâ€mesenchymal transition in human colorectal cancer cells through the expression of surfaceâ€bound TGFâ€Î². International Journal of Cancer, 2014, 134, 2583-2594.	5.1	58
117	Cartilage tissue engineering using pre-aggregated human articular chondrocytes. , 2008, 16, 92-99.		58
118	Structural characterization and reliable biomechanical assessment of integrative cartilage repair. Journal of Biomechanics, 2005, 38, 1846-1854.	2.1	57
119	Engineering of osteoinductive grafts by isolation and expansion of ovine bone marrow stromal cells directly on 3D ceramic scaffolds. Biotechnology and Bioengineering, 2006, 93, 181-187.	3.3	56
120	Osteoinductivity of engineered cartilaginous templates devitalized by inducible apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17426-17431.	7.1	56
121	In Vitro Osteogenic Differentiation and In Vivo Bone-Forming Capacity of Human Isogenic Jaw Periosteal Cells and Bone Marrow Stromal Cells. Annals of Surgery, 2005, 242, 859-868.	4.2	55
122	Fibroblast Growth Factor-2 Maintains a Niche-Dependent Population of Self-Renewing Highly Potent Non-adherent Mesenchymal Progenitors Through FGFR2c. Stem Cells, 2012, 30, 1455-1464.	3.2	55
123	Engineered decellularized matrices to instruct bone regeneration processes. Bone, 2015, 70, 66-72.	2.9	55
124	Growth Factors for Clinical-Scale Expansion of Human Articular Chondrocytes: Relevance for Automated Bioreactor Systems. Tissue Engineering, 2007, 13, 1227-1234.	4.6	54
125	Manufacturing Challenges in Regenerative Medicine. Science Translational Medicine, 2014, 6, 232fs16.	12.4	54
126	Intraoperative engineering of osteogenic grafts combining freshly harvested, human adipose-derived cells and physiological doses of bone morphogenetic protein-2. , 2012, 24, 308-319.		54

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127	Animal models for meniscus repair and regeneration. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 512-527.	2.7	53
128	Developmentally inspired programming of adult human mesenchymal stromal cells toward stable chondrogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4625-4630.	7.1	53
129	Spatially confined induction of endochondral ossification by functionalized hydrogels for ectopic engineering of osteochondral tissues. Biomaterials, 2018, 171, 219-229.	11.4	53
130	Interplay between stiffness and degradation of architectured gelatin hydrogels leads to differential modulation of chondrogenesis in vitro and in vivo. Acta Biomaterialia, 2018, 69, 83-94.	8.3	52
131	Dual Role of Mesenchymal Stem Cells Allows for Microvascularized Bone Tissueâ€Like Environments in PEG Hydrogels. Advanced Healthcare Materials, 2016, 5, 489-498.	7.6	51
132	Delivery of cellular factors to regulate bone healing. Advanced Drug Delivery Reviews, 2018, 129, 285-294.	13.7	51
133	Precultivation of Engineered Human Nasal Cartilage Enhances the Mechanical Properties Relevant for Use in Facial Reconstructive Surgery. Annals of Surgery, 2006, 244, 978-985.	4.2	50
134	Use of hydrodynamic forces to engineer cartilaginous tissues resembling the non-uniform structure and function of meniscus. Biomaterials, 2006, 27, 5927-5934.	11.4	49
135	Fluorescence Microscopy Imaging of Bone for Automated Histomorphometry. Tissue Engineering, 2002, 8, 847-852.	4.6	47
136	Platelet Lysate as a Serum Substitute for 2D Static and 3D Perfusion Culture of Stromal Vascular Fraction Cells from Human Adipose Tissue. Tissue Engineering - Part A, 2009, 15, 869-875.	3.1	47
137	In vitro platforms for tissue engineering: implications for basic research and clinical translation. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, e164-e167.	2.7	47
138	Scaffold-Based Delivery of a Clinically Relevant Anti-Angiogenic Drug Promotes the Formation of <i>In Vivo</i> Stable Cartilage. Tissue Engineering - Part A, 2013, 19, 1960-1971.	3.1	47
139	Spontaneous In Vivo Chondrogenesis of Bone Marrow-Derived Mesenchymal Progenitor Cells by Blocking Vascular Endothelial Growth Factor Signaling. Stem Cells Translational Medicine, 2016, 5, 1730-1738.	3.3	47
140	Effect of threeâ€dimensional expansion and cell seeding density on the cartilageâ€forming capacity of human articular chondrocytes in type II collagen sponges. Journal of Biomedical Materials Research - Part A, 2010, 95A, 924-931.	4.0	46
141	A relativity concept in mesenchymal stromal cell manufacturing. Cytotherapy, 2016, 18, 613-620.	0.7	45
142	Mesenchymal stromal cell variables influencing clinical potency: the impact of viability, fitness, route of administration and host predisposition. Cytotherapy, 2021, 23, 368-372.	0.7	45
143	Cartilage tissue engineering by expanded goat articular chondrocytes. Journal of Orthopaedic Research, 2006, 24, 1078-1085.	2.3	44
144	Generation of a Bone Organ by Human Adipose-Derived Stromal Cells Through Endochondral Ossification. Stem Cells Translational Medicine, 2016, 5, 1090-1097.	3.3	44

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145	Engineered Extracellular Matrices as Biomaterials of Tunable Composition and Function. Advanced Functional Materials, 2017, 27, 1605486.	14.9	44
146	Notchâ€inducing hydrogels reveal a perivascular switch of mesenchymal stem cell fate. EMBO Reports, 2018, 19, .	4.5	43
147	MSCs: science and trials. Nature Medicine, 2013, 19, 812-812.	30.7	41
148	Facile Fabrication of Egg White Macroporous Sponges for Tissue Regeneration. Advanced Healthcare Materials, 2015, 4, 2281-2290.	7.6	41
149	Cartilage graft engineering by co-culturing primary human articular chondrocytes with human bone marrow stromal cells. Journal of Tissue Engineering and Regenerative Medicine, 2015, 9, 1394-1403.	2.7	41
150	Priming 3D Cultures of Human Mesenchymal Stromal Cells Toward Cartilage Formation Via Developmental Pathways. Stem Cells and Development, 2013, 22, 2849-2858.	2.1	40
151	Culture of Melanoma Cells in 3-Dimensional Architectures Results in Impaired Immunorecognition by Cytotoxic T Lymphocytes Specific for Melan-A/MART-1 Tumor-Associated Antigen. Annals of Surgery, 2005, 242, 851-858.	4.2	39
152	The Survey on Cellular and Engineered Tissue Therapies in Europe in 2011. Tissue Engineering - Part A, 2013, 20, 131108064828001.	3.1	39
153	The osteogenicity of implanted engineered bone constructs is related to the density of clonogenic bone marrow stromal cells. Journal of Tissue Engineering and Regenerative Medicine, 2007, 1, 60-65.	2.7	38
154	Perspective on the Evolution of Cell-Based Bone Tissue Engineering Strategies. European Surgical Research, 2012, 49, 1-7.	1.3	38
155	Combination of immortalization and inducible death strategies to generate a human mesenchymal stromal cell line with controlled survival. Stem Cell Research, 2014, 12, 584-598.	0.7	38
156	Mesenchymal stromal cell activation by breast cancer secretomes in bioengineered 3D microenvironments. Life Science Alliance, 2019, 2, e201900304.	2.8	37
157	Biologically and mechanically driven design of an RGD-mimetic macroporous foam for adipose tissue engineering applications. Biomaterials, 2016, 104, 65-77.	11.4	36
158	Cell-based therapies for coronavirus disease 2019: proper clinical investigations are essential. Cytotherapy, 2020, 22, 602-605.	0.7	35
159	<i>In Vitro</i>Characterization of Immune-Related Properties of Human Fetal Bone Cells for Potential Tissue Engineering Applications. Tissue Engineering - Part A, 2009, 15, 1523-1532.	3.1	34
160	Modular Poly(ethylene glycol) Matrices for the Controlled 3Dâ€Localized Osteogenic Differentiation of Mesenchymal Stem Cells. Advanced Healthcare Materials, 2015, 4, 550-558.	7.6	34
161	Antiâ€Inflammatory/Tissue Repair Macrophages Enhance the Cartilageâ€Forming Capacity of Human Bone Marrowâ€Derived Mesenchymal Stromal Cells. Journal of Cellular Physiology, 2015, 230, 1258-1269.	4.1	34
162	Regenerative Potential of Tissue-Engineered Nasal Chondrocytes in Goat Articular Cartilage Defects. Tissue Engineering - Part A, 2016, 22, 1286-1295.	3.1	34

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163	Defining Properties of Neural Crestâ€"Derived Progenitor Cells from the Apex of Human Developing Tooth. Tissue Engineering - Part A, 2008, 14, 317-330.	3.1	33
164	Rapid prototyped porous nickelâ€"titanium scaffolds as bone substitutes. Journal of Tissue Engineering, 2014, 5, 204173141454067.	5.5	33
165	Anti-Inflammatory and Chondroprotective Effects of Vanillic Acid and Epimedin C in Human Osteoarthritic Chondrocytes. Biomolecules, 2020, 10, 932.	4.0	33
166	Human dental pulp stem cells exhibit enhanced properties in comparison to human bone marrow stem cells on neurites outgrowth. FASEB Journal, 2020, 34, 5499-5511.	0.5	33
167	Engineered Cartilage Maturation Regulates Cytokine Production and Interleukin-1Î² Response. Clinical Orthopaedics and Related Research, 2011, 469, 2773-2784.	1.5	32
168	The Survey on Cellular and Engineered Tissue Therapies in Europe in 2009. Tissue Engineering - Part A, 2011, 17, 2221-2230.	3.1	32
169	The Survey on Cellular and Engineered Tissue Therapies in Europe in 2010. Tissue Engineering - Part A, 2012, 18, 2268-2279.	3.1	32
170	Synthetic niche substrates engineered via two-photon laser polymerization for the expansion of human mesenchymal stromal cells. Journal of Tissue Engineering and Regenerative Medicine, 2017, 11, 2836-2845.	2.7	32
171	Prefabrication of a large pedicled bone graft by engineering the germ for de novo vascularization and osteoinduction. Biomaterials, 2019, 192, 118-127.	11.4	32
172	Engraftment of Prevascularized, Tissue Engineered Constructs in a Novel Rabbit Segmental Bone Defect Model. International Journal of Molecular Sciences, 2015, 16, 12616-12630.	4.1	31
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