Marcel Jakob

List of Publications by Year
in descending order

57 papers	4,190 citations	236925 25 h-index	161849 54 g-index
59 all docs	59 docs citations	59 times ranked	4475 citing authors

#	Article	IF	Citations
1	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
2	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
3	Osteochondral tissue engineering. Journal of Biomechanics, 2007, 40, 750-765.	2.1	330
4	Quantitative analysis of gene expression in human articular cartilage from normal and osteoarthritic joints. Osteoarthritis and Cartilage, 2001, 9, 112-118.	1.3	319
5	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
6	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
7	Three-Dimensional Tissue Engineering of Hyaline Cartilage: Comparison of Adult Nasal and Articular Chondrocytes. Tissue Engineering, 2002, 8, 817-826.	4.6	206
8	Threeâ€Dimensional Perfusion Culture of Human Bone Marrow Cells and Generation of Osteoinductive Grafts. Stem Cells, 2005, 23, 1066-1072.	3.2	182
9	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
10	Dynamic compression of cartilage constructs engineered from expanded human articular chondrocytes. Biochemical and Biophysical Research Communications, 2003, 310, 580-588.	2.1	159
11	Adult human neural crestâ€"derived cells for articular cartilage repair. Science Translational Medicine, 2014, 6, 251ra119.	12.4	108
12	Engineered cartilage generated by nasal chondrocytes is responsive to physical forces resembling joint loading. Arthritis and Rheumatism, 2008, 58, 197-208.	6.7	105
13	Towards an intraoperative engineering of osteogenic and vasculogenic grafts from the stromal vascular fraction of human adipose tissue. , 2010, 19, 127-135.		100
14	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
15	Bioreactor-based engineering of osteochondral grafts: from model systems to tissue manufacturing. Journal of Bioscience and Bioengineering, 2005, 100, 489-494.	2.2	86
16	Orthogeriatric care pathway: a prospective survey of impact on length of stay, mortality and institutionalisation. Archives of Orthopaedic and Trauma Surgery, 2014, 134, 1261-1269.	2.4	78
17	Three-Dimensional Cell Culture and Tissue Engineering in a T-CUP (Tissue Culture Under Perfusion). Tissue Engineering, 2007, 13, 2021-2028.	4.6	72
18	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

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19	Interleukin-1Î² modulates endochondral ossification by human adult bone marrow stromal cells. , 2012, 24, 224-236.		68
20	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
21	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
22	Structural characterization and reliable biomechanical assessment of integrative cartilage repair. Journal of Biomechanics, 2005, 38, 1846-1854.	2.1	57
23	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
24	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
25	Pubic rami fractures in the elderly â€" a neglected injury?. Swiss Medical Weekly, 2013, 143, w13859.	1.6	42
26	Perspective on the Evolution of Cell-Based Bone Tissue Engineering Strategies. European Surgical Research, 2012, 49, 1-7.	1.3	38
27	Regenerative Potential of Tissue-Engineered Nasal Chondrocytes in Goat Articular Cartilage Defects. Tissue Engineering - Part A, 2016, 22, 1286-1295.	3.1	34
28	The association of surgical drains with surgical site infections â€" A prospective observational study. American Journal of Surgery, 2019, 217, 17-23.	1.8	32
29	Differentiation-Dependent Up-Regulation of BMP-2, TGF-??1, and VEGF Expression by FGF-2 in Human Bone Marrow Stromal Cells. Plastic and Reconstructive Surgery, 2005, 116, 1379-1386.	1.4	24
30	Engineered nasal cartilage for the repair of osteoarthritic knee cartilage defects. Science Translational Medicine, 2021, 13, eaaz4499.	12.4	22
31	Intra-individual comparison of human nasal chondrocytes and debrided knee chondrocytes: Relevance for engineering autologous cartilage grafts. Clinical Hemorheology and Microcirculation, 2020, 74, 67-78.	1.7	20
32	Kinesiotaping for postoperative oedema â€" what is the evidence? A systematic review. BMC Sports Science, Medicine and Rehabilitation, 2020, 12, 14.	1.7	20
33	Intra-individual comparison of human ankle and knee chondrocytes in vitro: relevance for talar cartilage repair. Osteoarthritis and Cartilage, 2009, 17, 489-496.	1.3	19
34	Are ankle chondrocytes from damaged fragments a suitable cell source for cartilage repair?. Osteoarthritis and Cartilage, 2010, 18, 1067-1076.	1.3	18
35	The triceps reflecting approach (Bryan-Morrey) for distal humerus fracture osteosynthesis. BMC Musculoskeletal Disorders, 2014, 15, 406.	1.9	16
36	Radiographic evaluation of frontal talar edge configuration for osteochondral plug transplantation. Clinical Anatomy, 2009, 22, 261-266.	2.7	13

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37	A novel implantation technique for engineered osteo-chondral grafts. Knee Surgery, Sports Traumatology, Arthroscopy, 2009, 17, 1377-1383.	4.2	13
38	Notochordal cell conditioned medium (NCCM) regenerates end-stage human osteoarthritic articular chondrocytes and promotes a healthy phenotype. Arthritis Research and Therapy, 2016, 18, 125.	3.5	13
39	Generation and characterization of osteochondral grafts with human nasal chondrocytes. Journal of Orthopaedic Research, 2015, 33, 1111-1119.	2.3	12
40	Displaced trochanteric fragments lead to poor functional outcome in pertrochanteric fractures treated by cephalomedullary nails. Injury, 2015, 46, 2384-2388.	1.7	12
41	Minimally invasive anterior muscle-sparing versus a transgluteal approach for hemiarthroplasty in femoral neck fractures-a prospective randomised controlled trial including 190 elderly patients. BMC Geriatrics, 2018, 18, 222.	2.7	12
42	Expansion of Bone Marrow Mesenchymal Stromal Cells in Perfused 3D Ceramic Scaffolds Enhances In Vivo Bone Formation. Biotechnology Journal, 2017, 12, 1700071.	3.5	11
43	Handling of informed consent and patient inclusion in research with geriatric trauma patients – a matter of protection or disrespect? . Clinical Interventions in Aging, 2019, Volume 14, 321-334.	2.9	11
44	Daytime variation of perioperative myocardial injury in non-cardiac surgery and effect on outcome. Heart, 2019, 105, 826-833.	2.9	11
45	Mid-term results of minimally invasive deltoid-split versus standard open deltopectoral approach for PHILOSâ„¢ (proximal humeral internal locking system) osteosynthesis in proximal humeral fractures. European Journal of Trauma and Emergency Surgery, 2020, 46, 825-834.	1.7	11
46	Rivaroxaban for Thromboprophylaxis After Nonelective Orthopedic Trauma Surgery in Switzerland. Orthopedics, 2017, 40, 109-116.	1.1	10
47	From Tissue Engineering to Regenerative Surgery. EBioMedicine, 2018, 28, 11-12.	6.1	9
48	Routine patient surveys: Patientsâ€™ preferences and information gained by healthcare providers. PLoS ONE, 2019, 14, e0220495.	2.5	8
49	Tissue engineering for paediatric patients. Swiss Medical Weekly, 2019, 149, w20032.	1.6	7
50	High rate of maintaining self-dependence and low complication rate with a new treatment algorithm for proximal humeral fractures in the elderly population. Journal of Shoulder and Elbow Surgery, 2020, 29, 1127-1135.	2.6	5
51	Autologous Tissue-engineered Osteochondral Graft for Talus Osteochondral Lesions. Techniques in Foot and Ankle Surgery, 2011, 10, 163-168.	0.2	2
52	Use of peripheral blocks and tourniquets in foot surgery: A survey of Australian orthopaedic foot and ankle surgeons. Foot and Ankle Surgery, 2015, 21, 282-285.	1.7	2
53	The Penrod score: a prognostic instrument to balance an increasing geriatric fracture caseload with diminishing health care resources?. Archives of Orthopaedic and Trauma Surgery, 2016, 136, 1099-1106.	2.4	2
54	Notochordal cell conditioned medium enhances the cartilage matrix production and reduces catabolism by human articular chondrocytes. Osteoarthritis and Cartilage, 2016, 24, S169.	1.3	1

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55	Rationale and methods of an observational study to support the design of a nationwide surgical registry: the MIDAS study. Swiss Medical Weekly, 2018, 148, w14680.	1.6	1
56	Healthcare provider profiling: fixing observation period or fixing sample size?. BMJ Open Quality, 2022, 11, e001588.	1.1	0
57	In Vitro and Ectopic In Vivo Studies toward the Utilization of Rapidly Isolated Human Nasal Chondrocytes for Single-Stage Arthroscopic Cartilage Regeneration Therapy. International Journal of Molecular Sciences, 2022, 23, 6900.	4.1	0