Makarand V Risbud

List of Publications by Year in Descending Order

137 papers	10,004 citations	49 h-index	98 g-index
144 ext. papers	11,317 ext. citations	5.8 avg, IF	6.45 L-index

#	Paper	IF	Citations
137	Null Mice-a Model for Mineralization Disorder PXE Shows Vertebral Osteopenia Without Enhanced Intervertebral Disc Calcification With Aging.. *Frontiers in Cell and Developmental Biology*, **2022**, 10, 823249	5.7	0
136	Role of autophagy in intervertebral disc and cartilage function: implications in health and disease. *Matrix Biology*, **2021**, 100-101, 207-220	11.4	7
135	The role of HIF proteins in maintaining the metabolic health of the intervertebral disc. *Nature Reviews Rheumatology*, **2021**, 17, 426-439	8.1	11
134	Development of a standardized histopathology scoring system using machine learning algorithms for intervertebral disc degeneration in the mouse model-An ORS spine section initiative. *JOR Spine*, **2021**, 4, e1164	3.7	6
133	Understanding embryonic development for cell-based therapies of intervertebral disc degeneration: Toward an effort to treat disc degeneration subphenotypes. *Developmental Dynamics*, **2021**, 250, 302-317	2.9	12
132	Hypoxia and Hypoxia-Inducible Factor-1 Regulate Endoplasmic Reticulum Stress in Nucleus Pulposus Cells: Implications of Endoplasmic Reticulum Stress for Extracellular Matrix Secretion. *American Journal of Pathology*, **2021**, 191, 487-502	5.8	5
131	Long-term treatment with senolytic drugs Dasatinib and Quercetin ameliorates age-dependent intervertebral disc degeneration in mice. *Nature Communications*, **2021**, 12, 5213	17.4	20
130	Alterations in ECM signature underscore multiple sub-phenotypes of intervertebral disc degeneration. *Matrix Biology Plus*, **2020**, 6-7, 100036	5.1	7
129	Hypoxic Regulation of Mitochondrial Metabolism and Mitophagy in Nucleus Pulposus Cells Is Dependent on HIF-1 BNIP3 Axis. *Journal of Bone and Mineral Research*, **2020**, 35, 1504-1524	6.3	26
128	Comparison of inbred mouse strains shows diverse phenotypic outcomes of intervertebral disc aging. *Aging Cell*, **2020**, 19, e13148	9.9	15
127	Arp2/3 inactivation causes intervertebral disc and cartilage degeneration with dysregulated TonEBP-mediated osmoadaptation. *JCI Insight*, **2020**, 5,	9.9	12
126	Lactate Efflux From Intervertebral Disc Cells Is Required for Maintenance of Spine Health. *Journal of Bone and Mineral Research*, **2020**, 35, 550-570	6.3	18
125	TonEBP-deficiency accelerates intervertebral disc degeneration underscored by matrix remodeling, cytoskeletal rearrangements, and changes in proinflammatory gene expression. *Matrix Biology*, **2020**, 87, 94-111	11.4	24
124	Differential Effect of Long-Term Systemic Exposure of TNF on Health of the Annulus Fibrosus and Nucleus Pulposus of the Intervertebral Disc. *Journal of Bone and Mineral Research*, **2020**, 35, 725-737	6.3	12
123	Sox9 deletion causes severe intervertebral disc degeneration characterized by apoptosis, matrix remodeling, and compartment-specific transcriptomic changes. *Matrix Biology*, **2020**, 94, 110-133	11.4	25
122	A New Understanding of the Role of IL-1 in Age-Related Intervertebral Disc Degeneration in a Murine Model. *Journal of Bone and Mineral Research*, **2019**, 34, 1531-1542	6.3	26
121	p16 deletion in cells of the intervertebral disc affects their matrix homeostasis and senescence associated secretory phenotype without altering onset of senescence. *Matrix Biology*, **2019**, 82, 54-70	11.4	35

120	Discogenic Back Pain: Literature Review of Definition, Diagnosis, and Treatment. *JBMR Plus*, **2019**, 3, e10180	3.9	51
119	RNA binding protein HuR regulates extracellular matrix gene expression and pH homeostasis independent of controlling HIF-1α signaling in nucleus pulposus cells. *Matrix Biology*, **2019**, 77, 23-40	11.4	18
118	NFAT5/TonEBP controls early acquisition of notochord phenotypic markers, collagen composition, and sonic hedgehog signaling during mouse intervertebral disc embryogenesis. *Developmental Biology*, **2019**, 455, 369-381	3.1	11
117	Nucleus pulposus primary cilia alter their length in response to changes in extracellular osmolarity but do not control TonEBP-mediated osmoregulation. *Scientific Reports*, **2019**, 9, 15469	4.9	1
116	Transgenic mice overexpressing human TNF-α experience early onset spontaneous intervertebral disc herniation in the absence of overt degeneration. *Cell Death and Disease*, **2018**, 10, 7	9.8	29
115	Glycosaminoglycan synthesis in the nucleus pulposus: Dysregulation and the pathogenesis of disc degeneration. *Matrix Biology*, **2018**, 71-72, 368-379	11.4	53
114	A novel mouse model of intervertebral disc degeneration shows altered cell fate and matrix homeostasis. *Matrix Biology*, **2018**, 70, 102-122	11.4	53
113	Expression of Carbonic Anhydrase III, a Nucleus Pulposus Phenotypic Marker, is Hypoxia-responsive and Confers Protection from Oxidative Stress-induced Cell Death. *Scientific Reports*, **2018**, 8, 4856	4.9	24
112	Bicarbonate Recycling by HIF-1-Dependent Carbonic Anhydrase Isoforms 9 and 12 Is Critical in Maintaining Intracellular pH and Viability of Nucleus Pulposus Cells. *Journal of Bone and Mineral Research*, **2018**, 33, 338-355	6.3	25
111	COX-2 expression mediated by calcium-TonEBP signaling axis under hyperosmotic conditions serves osmoprotective function in nucleus pulposus cells. *Journal of Biological Chemistry*, **2018**, 293, 8969-8981	5.4	18
110	New horizons in spine research: Disc biology, tissue engineering, biomechanics, translational, and clinical research. *JOR Spine*, **2018**, 1, e1032	3.7	5
109	Challenges in Cell-Based Therapies for Intervertebral Disc Regeneration: Lessons Learned From Embryonic Development and Pathophysiology **2018**, 149-180		
108	New horizons in spine research: Intervertebral disc repair and regeneration. *Journal of Orthopaedic Research*, **2017**, 35, 5-7	3.8	6
107	PHD3 is a transcriptional coactivator of HIF-1α in nucleus pulposus cells independent of the PKM2-JMJD5 axis. *FASEB Journal*, **2017**, 31, 3831-3847	0.9	17
106	TNF-α promotes nuclear enrichment of the transcription factor TonEBP/NFAT5 to selectively control inflammatory but not osmoregulatory responses in nucleus pulposus cells. *Journal of Biological Chemistry*, **2017**, 292, 17561-17575	5.4	29
105	Lack of evidence for involvement of TonEBP and hyperosmotic stimulus in induction of autophagy in the nucleus pulposus. *Scientific Reports*, **2017**, 7, 4543	4.9	12
104	New Horizons in Spine Research: Disc biology, spine biomechanics and pathomechanisms of back pain. *Journal of Orthopaedic Research*, **2016**, 34, 1287-8	3.8	0
103	N-cadherin is Key to Expression of the Nucleus Pulposus Cell Phenotype under Selective Substrate Culture Conditions. *Scientific Reports*, **2016**, 6, 28038	4.9	28

102	Hypoxia promotes noncanonical autophagy in nucleus pulposus cells independent of MTOR and HIF1A signaling. *Autophagy*, **2016**, 12, 1631-46	10.2	71
101	Syndecan-4 in intervertebral disc and cartilage: Saint or synner?. *Matrix Biology*, **2016**, 52-54, 355-362	11.4	25
100	TGFregulates Galectin-3 expression through canonical Smad3 signaling pathway in nucleus pulposus cells: implications in intervertebral disc degeneration. *Matrix Biology*, **2016**, 50, 39-52	11.4	19
99	Circadian factors BMAL1 and RORcontrol HIF-1transcriptional activity in nucleus pulposus cells: implications in maintenance of intervertebral disc health. *Oncotarget*, **2016**, 7, 23056-71	3.3	20
98	Class I and IIa HDACs Mediate HIF-1Stability Through PHD2-Dependent Mechanism, While HDAC6, a Class IIb Member, Promotes HIF-1Transcriptional Activity in Nucleus Pulposus Cells of the Intervertebral Disc. *Journal of Bone and Mineral Research*, **2016**, 31, 1287-99	6.3	30
97	Molecular mechanisms of biological aging in intervertebral discs. *Journal of Orthopaedic Research*, **2016**, 34, 1289-306	3.8	195
96	RNA Sequencing Reveals a Role of TonEBP Transcription Factor in Regulation of Pro-inflammatory Genes in Response to Hyperosmolarity in Healthy Nucleus Pulposus Cells: A HOMEOSTATIC RESPONSE?. *Journal of Biological Chemistry*, **2016**, 291, 26686-26697	5.4	25
95	Xylosyltransferase-1 expression is refractory to inhibition by the inflammatory cytokines tumor necrosis factor and IL-1in nucleus pulposus cells: novel regulation by AP-1, Sp1, and Sp3. *American Journal of Pathology*, **2015**, 185, 485-95	5.8	22
94	Substance P Receptor Antagonist Suppresses Inflammatory Cytokine Expression in Human Disc Cells. *Spine*, **2015**, 40, 1261-9	3.3	13
93	Aquaporin 1 and 5 expression decreases during human intervertebral disc degeneration: Novel HIF-1-mediated regulation of aquaporins in NP cells. *Oncotarget*, **2015**, 6, 11945-58	3.3	18
92	Matrix vesicles: Are they anchored exosomes?. *Bone*, **2015**, 79, 29-36	4.7	103
91	Defining the phenotype of young healthy nucleus pulposus cells: recommendations of the Spine Research Interest Group at the 2014 annual ORS meeting. *Journal of Orthopaedic Research*, **2015**, 33, 283-93	3.8	169
90	Prolyl-4-hydroxylase domain protein 2 controls NF-B/p65 transactivation and enhances the catabolic effects of inflammatory cytokines on cells of the nucleus pulposus. *Journal of Biological Chemistry*, **2015**, 290, 7195-207	5.4	36
89	Discovery of the drivers of inflammation induced chronic low back pain: from bacteria to diabetes. *Discovery Medicine*, **2015**, 20, 177-84	2.5	13
88	Understanding nucleus pulposus cell phenotype: a prerequisite for stem cell based therapies to treat intervertebral disc degeneration. *Current Stem Cell Research and Therapy*, **2015**, 10, 307-16	3.6	43
87	Role of cytokines in intervertebral disc degeneration: pain and disc content. *Nature Reviews Rheumatology*, **2014**, 10, 44-56	8.1	734
86	Tumor necrosis factor-and interleukin-1dependent matrix metalloproteinase-3 expression in nucleus pulposus cells requires cooperative signaling via syndecan 4 and mitogen-activated protein kinase-NF-B axis: implications in inflammatory disc disease. *American Journal of Pathology*, **2014**, 184, 2560-72	5.8	96
85	Loss of HIF-1in the notochord results in cell death and complete disappearance of the nucleus pulposus. *PLoS ONE*, **2014**, 9, e110768	3.7	61

84	FIH-1-Mint3 axis does not control HIF-1 transcriptional activity in nucleus pulposus cells. *Journal of Biological Chemistry*, **2014**, 289, 20594-605	5.4	17
83	Extracellular osmolarity regulates matrix homeostasis in the intervertebral disc and articular cartilage: evolving role of TonEBP. *Matrix Biology*, **2014**, 40, 10-6	11.4	82
82	HIF-1-PHD2 axis controls expression of syndecan 4 in nucleus pulposus cells. *FASEB Journal*, **2014**, 28, 2455-65	0.9	24
81	Differential gene expression in anterior and posterior annulus fibrosus. *Spine*, **2014**, 39, 1917-23	3.3	14
80	CCN2 suppresses catabolic effects of interleukin-1□through □□ and □□ integrins in nucleus pulposus cells: implications in intervertebral disc degeneration. *Journal of Biological Chemistry*, **2014**, 289, 7374-87	5.4	44
79	Introduction to the Structure, Function, and Comparative Anatomy of the Vertebrae and the Intervertebral Disc **2014**, 3-15		8
78	Microenvironmental Control of Disc Cell Function: Influence of Hypoxia and Osmotic Pressure **2014** , 93-108		3
77	An organ culture system to model early degenerative changes of the intervertebral disc II: profiling global gene expression changes. *Arthritis Research and Therapy*, **2013**, 15, R121	5.7	32
76	Molecular regulation of CCN2 in the intervertebral disc: lessons learned from other connective tissues. *Matrix Biology*, **2013**, 32, 298-306	11.4	26
75	Inflammatory cytokines associated with degenerative disc disease control aggrecanase-1 (ADAMTS-4) expression in nucleus pulposus cells through MAPK and NF-□B. *American Journal of Pathology*, **2013**, 182, 2310-21	5.8	138
74	Tumor necrosis factor □and interleukin-1□dependent induction of CCL3 expression by nucleus pulposus cells promotes macrophage migration through CCR1. *Arthritis and Rheumatism*, **2013**, 65, 832-42		105
73	Expression and relationship of proinflammatory chemokine RANTES/CCL5 and cytokine IL-1□in painful human intervertebral discs. *Spine*, **2013**, 38, 873-80	3.3	73
72	Inflammatory cytokines induce NOTCH signaling in nucleus pulposus cells: implications in intervertebral disc degeneration. *Journal of Biological Chemistry*, **2013**, 288, 16761-16774	5.4	75
71	Hypoxia-inducible factor (HIF)-1□and CCN2 form a regulatory circuit in hypoxic nucleus pulposus cells: CCN2 suppresses HIF-1□level and transcriptional activity. *Journal of Biological Chemistry*, **2013**, 288, 12654-66	5.4	35
70	Substance P stimulates production of inflammatory cytokines in human disc cells. *Spine*, **2013**, 38, E1291-9	3.3	62
69	Exhaustion of nucleus pulposus progenitor cells with ageing and degeneration of the intervertebral disc. *Nature Communications*, **2012**, 3, 1264	17.4	267
68	Is the spinal motion segment a diarthrodial polyaxial joint: what a nice nucleus like you doing in a joint like this?. *Bone*, **2012**, 50, 771-6	4.7	32
67	Smad3 controls □1,3-glucuronosyltransferase 1 expression in rat nucleus pulposus cells: implications of dysregulated expression in disc disease. *Arthritis and Rheumatism*, **2012**, 64, 3324-33		10

66	Tonicity enhancer binding protein (TonEBP) and hypoxia-inducible factor (HIF) coordinate heat shock protein 70 (Hsp70) expression in hypoxic nucleus pulposus cells: role of Hsp70 in HIF-1α degradation. *Journal of Bone and Mineral Research*, **2012**, 27, 1106-17	6.3	37
65	HIF-1α and HIF-2α degradation is differentially regulated in nucleus pulposus cells of the intervertebral disc. *Journal of Bone and Mineral Research*, **2012**, 27, 401-12	6.3	60
64	Prolyl hydroxylase 3 (PHD3) modulates catabolic effects of tumor necrosis factor-α (TNF-α) on cells of the nucleus pulposus through co-activation of nuclear factor κB (NF-κB)/p65 signaling. *Journal of Biological Chemistry*, **2012**, 287, 39942-53	5.4	58
63	Expression of prolyl hydroxylases (PHDs) is selectively controlled by HIF-1 and HIF-2 proteins in nucleus pulposus cells of the intervertebral disc: distinct roles of PHD2 and PHD3 proteins in controlling HIF-1α activity in hypoxia. *Journal of Biological Chemistry*, **2012**, 287, 16975-86	5.4	57
62	An organ culture system to model early degenerative changes of the intervertebral disc. *Arthritis Research and Therapy*, **2011**, 13, R171	5.7	46
61	Notochordal cells in the adult intervertebral disc: new perspective on an old question. *Critical Reviews in Eukaryotic Gene Expression*, **2011**, 21, 29-41	1.3	112
60	Hypoxia activates the notch signaling pathway in cells of the intervertebral disc: implications in degenerative disc disease. *Arthritis and Rheumatism*, **2011**, 63, 1355-64		63
59	Hypoxic regulation of β1,3-glucuronyltransferase 1 expression in nucleus pulposus cells of the rat intervertebral disc: role of hypoxia-inducible factor proteins. *Arthritis and Rheumatism*, **2011**, 63, 1950-60		35
58	Transforming growth factor β controls CCN3 expression in nucleus pulposus cells of the intervertebral disc. *Arthritis and Rheumatism*, **2011**, 63, 3022-31		22
57	TNF-α and IL-1β promote a disintegrin-like and metalloprotease with thrombospondin type I motif-5-mediated aggrecan degradation through syndecan-4 in intervertebral disc. *Journal of Biological Chemistry*, **2011**, 286, 39738-49	5.4	177
56	Hypoxic regulation of nucleus pulposus cell survival: from niche to notch. *American Journal of Pathology*, **2010**, 176, 1577-83	5.8	78
55	Reversine enhances generation of progenitor-like cells by dedifferentiation of annulus fibrosus cells. *Tissue Engineering - Part A*, **2010**, 16, 1443-55	3.9	33
54	BMP-2 and TGF-beta stimulate expression of beta1,3-glucuronosyl transferase 1 (GlcAT-1) in nucleus pulposus cells through AP1, TonEBP, and Sp1: role of MAPKs. *Journal of Bone and Mineral Research*, **2010**, 25, 1179-90	6.3	47
53	Toward an understanding of the role of notochordal cells in the adult intervertebral disc: from discord to accord. *Developmental Dynamics*, **2010**, 239, 2141-8	2.9	107
52	Regulation of CCN2/connective tissue growth factor expression in the nucleus pulposus of the intervertebral disc: role of Smad and activator protein 1 signaling. *Arthritis and Rheumatism*, **2010**, 62, 1983-92		48
51	Hypoxia-inducible factor regulation of ANK expression in nucleus pulposus cells: possible implications in controlling dystrophic mineralization in the intervertebral disc. *Arthritis and Rheumatism*, **2010**, 62, 2707-15		25
50	Enhancement of intervertebral disc cell senescence by WNT/β-catenin signaling-induced matrix metalloproteinase expression. *Arthritis and Rheumatism*, **2010**, 62, 3036-47		113
49	Activation of TonEBP by calcium controls {beta}1,3-glucuronosyltransferase-I expression, a key regulator of glycosaminoglycan synthesis in cells of the intervertebral disc. *Journal of Biological Chemistry*, **2009**, 284, 9824-34	5.4	42

48	PI3K/AKT regulates aggrecan gene expression by modulating Sox9 expression and activity in nucleus pulposus cells of the intervertebral disc. *Journal of Cellular Physiology*, **2009**, 221, 668-76	7	55
47	Osmolarity and intracellular calcium regulate aquaporin2 expression through TonEBP in nucleus pulposus cells of the intervertebral disc. *Journal of Bone and Mineral Research*, **2009**, 24, 992-1001	6.3	38
46	Cited2 modulates hypoxia-inducible factor-dependent expression of vascular endothelial growth factor in nucleus pulposus cells of the rat intervertebral disc. *Arthritis and Rheumatism*, **2008**, 58, 3798-808		62
45	SMAD3 functions as a transcriptional repressor of acid-sensing ion channel 3 (ASIC3) in nucleus pulposus cells of the intervertebral disc. *Journal of Bone and Mineral Research*, **2008**, 23, 1619-28	6.3	28
44	MEK/ERK signaling controls osmoregulation of nucleus pulposus cells of the intervertebral disc by transactivation of TonEBP/OREBP. *Journal of Bone and Mineral Research*, **2007**, 22, 965-74	6.3	84
43	HIF-1 alpha is a regulator of galectin-3 expression in the intervertebral disc. *Journal of Bone and Mineral Research*, **2007**, 22, 1851-61	6.3	79
42	Expression of acid-sensing ion channel 3 (ASIC3) in nucleus pulposus cells of the intervertebral disc is regulated by p75NTR and ERK signaling. *Journal of Bone and Mineral Research*, **2007**, 22, 1996-2006	6.3	62
41	Normoxic stabilization of HIF-1alpha drives glycolytic metabolism and regulates aggrecan gene expression in nucleus pulposus cells of the rat intervertebral disk. *American Journal of Physiology - Cell Physiology*, **2007**, 293, C621-31	5.4	133
40	Galectin-3 expression in the intervertebral disc: a useful marker of the notochord phenotype?. *Spine*, **2007**, 32, 9-16	3.3	22
39	Fibroblast growth factor-2 maintains the differentiation potential of nucleus pulposus cells in vitro: implications for cell-based transplantation therapy. *Spine*, **2007**, 32, 495-502	3.3	46
38	Evidence for skeletal progenitor cells in the degenerate human intervertebral disc. *Spine*, **2007**, 32, 2537-44	3.3	215
37	Nucleus pulposus cells express HIF-1 alpha under normoxic culture conditions: a metabolic adaptation to the intervertebral disc microenvironment. *Journal of Cellular Biochemistry*, **2006**, 98, 152-9	4.7	200
36	TonEBP/OREBP is a regulator of nucleus pulposus cell function and survival in the intervertebral disc. *Journal of Biological Chemistry*, **2006**, 281, 25416-24	5.4	77
35	Toward an optimum system for intervertebral disc organ culture: TGF-beta 3 enhances nucleus pulposus and anulus fibrosus survival and function through modulation of TGF-beta-R expression and ERK signaling. *Spine*, **2006**, 31, 884-90	3.3	86
34	Osteogenic potential of adult human stem cells of the lumbar vertebral body and the iliac crest. *Spine*, **2006**, 31, 83-9	3.3	52
33	Cell-based therapy for disc repair. *Spine Journal*, **2005**, 5, 297S-303S	4	46
32	Cellular therapy for disc degeneration. *Spine*, **2005**, 30, S14-9	3.3	38
31	Hypoxia activates MAPK activity in rat nucleus pulposus cells: regulation of integrin expression and cell survival. *Spine*, **2005**, 30, 2503-9	3.3	72

30	Nucleus pulposus cells upregulate PI3K/Akt and MEK/ERK signaling pathways under hypoxic conditions and resist apoptosis induced by serum withdrawal. *Spine*, **2005**, 30, 882-9	3.3	98
29	Chitosan: a versatile biopolymer for orthopaedic tissue-engineering. *Biomaterials*, **2005**, 26, 5983-90	15.6	1311
28	Scaffold-based tissue engineering: rationale for computer-aided design and solid free-form fabrication systems. *Trends in Biotechnology*, **2004**, 22, 354-62	15.1	888
27	Modeling of phosphate ion transfer to the surface of osteoblasts under normal gravity and simulated microgravity conditions. *Annals of the New York Academy of Sciences*, **2004**, 1027, 85-98	6.5	11
26	Current strategies for cell delivery in cartilage and bone regeneration. *Current Opinion in Biotechnology*, **2004**, 15, 411-8	11.4	147
25	Stem cell regeneration of the nucleus pulposus. *Spine Journal*, **2004**, 4, 348S-353S	4	47
24	Differentiation of mesenchymal stem cells towards a nucleus pulposus-like phenotype in vitro: implications for cell-based transplantation therapy. *Spine*, **2004**, 29, 2627-32	3.3	251
23	An organ culture system for the study of the nucleus pulposus: description of the system and evaluation of the cells. *Spine*, **2003**, 28, 2652-8; discussion 2658-9	3.3	54
22	In vivo biocompatibility evaluation of cellulose macrocapsules for islet immunoisolation: Implications of low molecular weight cut-off. *Journal of Biomedical Materials Research Part B*, **2003**, 66, 86-92		23
21	Hydrogel-coated textile scaffolds as candidate in liver tissue engineering: II. Evaluation of spheroid formation and viability of hepatocytes. *Journal of Biomaterials Science, Polymer Edition*, **2003**, 14, 719-31	3.5	32
20	Tissue engineering: advances in in vitro cartilage generation. *Trends in Biotechnology*, **2002**, 20, 351-6	15.1	208
19	Phenotypic characteristics of the nucleus pulposus: expression of hypoxia inducing factor-1, glucose transporter-1 and MMP-2. *Cell and Tissue Research*, **2002**, 308, 401-7	4.2	130
18	Immunocytochemical localization of growth hormone-releasing hormone-like peptide in the brain of the tiger frog, Rana tigrina. *General and Comparative Endocrinology*, **2002**, 126, 200-12	3	1
17	Radio-frequency plasma treatment improves the growth and attachment of endothelial cells on poly(methyl methacrylate) substrates: implications in tissue engineering. *Journal of Biomaterials Science, Polymer Edition*, **2002**, 13, 1067-80	3.5	19
16	Nonporous polyurethane membranes as islet immunoisolation matrices--biocompatibility studies. *Journal of Biomaterials Applications*, **2002**, 16, 327-40	2.9	17
15	Models of pancreatic regeneration in diabetes. *Diabetes Research and Clinical Practice*, **2002**, 58, 155-65	7.4	38
14	Hydrogel-coated textile scaffolds as three-dimensional growth support for human umbilical vein endothelial cells (HUVECs): possibilities as coculture system in liver tissue engineering. *Cell Transplantation*, **2002**, 11, 369-77	4	4
13	Preparation, characterization and in vitro biocompatibility evaluation of poly(butylene terephthalate)/wollastonite composites. *Biomaterials*, **2001**, 22, 1591-7	15.6	48

12	Suitability of cellulose molecular dialysis membrane for bioartificial pancreas: in vitro biocompatibility studies. *Journal of Biomedical Materials Research Part B*, **2001**, 54, 436-44		42
11	Biocompatible hydrogel supports the growth of respiratory epithelial cells: possibilities in tracheal tissue engineering. *Journal of Biomedical Materials Research Part B*, **2001**, 56, 120-7		58
10	Effect of chitosan-polyvinyl pyrrolidone hydrogel on proliferation and cytokine expression of endothelial cells: implications in islet immunoisolation. *Journal of Biomedical Materials Research Part B*, **2001**, 57, 300-5		46
9	Tissue engineering: implications in the treatment of organ and tissue defects. *Biogerontology*, **2001**, 2, 117-25	4.5	40
8	Islet cryopreservation: improved recovery following taurine pretreatment. *Cell Transplantation*, **2001**, 10, 247-53	4	10
7	Islet immunoisolation: experience with biopolymers. *Journal of Biomaterials Science, Polymer Edition*, **2001**, 12, 1243-52	3.5	13
6	Biocompatibility assessment of polytetrafluoroethylene/wollastonite composites using endothelial cells and macrophages. *Journal of Biomaterials Science, Polymer Edition*, **2001**, 12, 1177-89	3.5	11
5	Selective cytotoxicity of MIA Pa Ca-2 conditioned medium to acinar cells: a novel approach to reduce acinar cell contaminants in isolated islet preparations from BALB/c mice. *Transplant International*, **2001**, 14, 191-5	3	
4	Chitosan-polyvinyl pyrrolidone hydrogels as candidate for islet immunoisolation: in vitro biocompatibility evaluation. *Cell Transplantation*, **2000**, 9, 25-31	4	36
3	pH-sensitive freeze-dried chitosan-polyvinyl pyrrolidone hydrogels as controlled release system for antibiotic delivery. *Journal of Controlled Release*, **2000**, 68, 23-30	11.7	385
2	Growth modulation of fibroblasts by chitosan-polyvinyl pyrrolidone hydrogel: implications for wound management?. *Journal of Biosciences*, **2000**, 25, 25-31	2.3	63
1	A simple microcapsule generator design for islet encapsulation. *Journal of Biosciences*, **1999**, 24, 371-376	2.3	17