Denitsa Docheva

List of Publications by Year
in descending order

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Version: 2024-02-01

111 papers	5,384 citations	101384 36 h-index	91712 69 g-index
119 all docs	119 docs citations	119 times ranked	6688 citing authors

#	Article	IF	Citations
1	Cell-based treatment options facilitate regeneration of cartilage, ligaments and meniscus in demanding conditions of the knee by a whole joint approach. Knee Surgery, Sports Traumatology, Arthroscopy, 2022, 30, 1138-1150.	2.3	11
2	Implantâ€boneâ€interface: Reviewing the impact of titanium surface modifications on osteogenic processes in vitro and in vivo. Bioengineering and Translational Medicine, 2022, 7, e10239.	3.9	66
3	Bioengineered 3D Living Fibers as In Vitro Human Tissue Models of Tendon Physiology and Pathology. Advanced Healthcare Materials, 2022, 11, .	3.9	13
4	Rifampicin restores extracellular organic matrix formation and mineralization of osteoblasts after intracellular Staphylococcus aureus infection. Bone and Joint Research, 2022, 11, 327-341.	1.3	5
5	Bone regeneration after marginal bone resection in two-stage treatment of chronic long bone infection - a combined histopathological and clinical pilot study. Injury, 2022, 53, 3446-3457.	0.7	2
6	An anisotropic nanocomposite hydrogel guides aligned orientation and enhances tenogenesis of human tendon stem/progenitor cells. Biomaterials Science, 2021, 9, 1237-1245.	2.6	25
7	Establishment of Alkaline Phosphatase deficient odontogenous cell lines to analyze dental aspects of hypophosphatasia. , 2021, 30, .		0
8	Single Cell Bioprinting with Ultrashort Laser Pulses. Advanced Functional Materials, 2021, 31, 2100066.	7.8	19
9	The importance of TNAP/Tnap for dental development in human cell culture and in zebrafish. Bone Reports, 2021, 14, 101006.	0.2	0
10	Printing of living cells by using ultra-short laser pulses. , 2021, , .		0
11	The future of basic science in orthopaedics and traumatology: Cassandra or Prometheus?. European Journal of Medical Research, 2021, 26, 56.	0.9	7
12	Dental follicle cell differentiation towards periodontal ligament-like tissue in a self-assembly three-dimensional organoid model. , 2021, 42, 20-33.		6
13	Tenomodulin and Chondromodulin-1 Are Both Required to Maintain Biomechanical Function and Prevent Intervertebral Disc Degeneration. Cartilage, 2021, 13, 604S-614S.	1.4	3
14	Extending Single Cell Bioprinting from Femtosecond to Picosecond Laser Pulse Durations. Micromachines, 2021, 12, 1172.	1.4	6
15	Porous micro/nano structured oxidic titanium surface decorated with silicon monoxide. Surfaces and Interfaces, 2021, 26, 101304.	1.5	6
16	Micro/nano-structured titanium surfaces modified by NaOHâ€“CaCl2-heat-water treatment: Biomimetic calcium phosphate deposition and hMSCs behavior. Materials Chemistry and Physics, 2021, 272, 124896.	2.0	3
17	Nano and micro-forms of calcium titanate: Synthesis, properties and application. Open Ceramics, 2021, 8, 100177.	1.0	8
18	Tenomodulin knockout mice exhibit worse late healing outcomes with augmented trauma-induced heterotopic ossification of Achilles tendon. Cell Death and Disease, 2021, 12, 1049.	2.7	17

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19	Fibronectin Adherent Cell Populations Derived From Avascular and Vascular Regions of the Meniscus Have Enhanced Clonogenicity and Differentiation Potential Under Physioxia. Frontiers in Bioengineering and Biotechnology, 2021, 9, 789621.	2.0	8
20	Effect of static compressive force on in vitro cultured PDL fibroblasts: monitoring of viability and gene expression over 6Âdays. Clinical Oral Investigations, 2020, 24, 2497-2511.	1.4	13
21	Editorial for Special Issue: Achilles Curse and Remedy: Tendon Diseases from Pathophysiology to Novel Therapeutic Approaches. International Journal of Molecular Sciences, 2020, 21, 7454.	1.8	0
22	Microstructural evaluation and thermal properties of sol-gel derived silica-titania based porous glasses. Journal of Physics: Conference Series, 2020, 1527, 012031.	0.3	2
23	A Human Periodontal Ligament Fibroblast Cell Line as a New Model to Study Periodontal Stress. International Journal of Molecular Sciences, 2020, 21, 7961.	1.8	10
24	Inadequate tissue mineralization promotes cancer cell attachment. PLoS ONE, 2020, 15, e0237116.	1.1	2
25	Recent advances and future perspectives of solâ€“gel derived porous bioactive glasses: a review. RSC Advances, 2020, 10, 33782-33835.	1.7	108
26	Physioxia Expanded Bone Marrow Derived Mesenchymal Stem Cells Have Improved Cartilage Repair in an Early Osteoarthritic Focal Defect Model. Biology, 2020, 9, 230.	1.3	16
27	Rebuilding Tendons: A Concise Review on the Potential of Dermal Fibroblasts. Cells, 2020, 9, 2047.	1.8	11
28	Aged Tendon Stem/Progenitor Cells Are Less Competent to Form 3D Tendon Organoids Due to Cell Autonomous and Matrix Production Deficits. Frontiers in Bioengineering and Biotechnology, 2020, 8, 406.	2.0	25
29	Changes of Material Elastic Properties during Healing of Ruptured Achilles Tendons Measured with Shear Wave Elastography: A Pilot Study. International Journal of Molecular Sciences, 2020, 21, 3427.	1.8	10
30	Tenogenic Contribution to Skeletal Muscle Regeneration: The Secretome of Scleraxis Overexpressing Mesenchymal Stem Cells Enhances Myogenic Differentiation In Vitro. International Journal of Molecular Sciences, 2020, 21, 1965.	1.8	8
31	Quantitative Analysis of Surface Contouring with Pulsed Bipolar Radiofrequency on Thin Chondromalacic Cartilage. BioMed Research International, 2020, 2020, 1-8.	0.9	1
32	Corrosion behavior of titanium silicide surface with hydrogen peroxide: Formation of sub-Î¼m TiOx-based spheres, nanocomposite TiOx/SiOx phases, and mesoporous TiOx/SiOx network. Applied Surface Science, 2020, 529, 147133.	3.1	3
33	Attenuation of Hypertrophy in Human MSCs via Treatment with a Retinoic Acid Receptor Inverse Agonist. International Journal of Molecular Sciences, 2020, 21, 1444.	1.8	10
34	Loss of tenomodulin expression is a risk factor for ageâ€related intervertebral disc degeneration. Aging Cell, 2020, 19, e13091.	3.0	36
35	Three-dimensional self-assembling nanofiber matrix rejuvenates aged/degenerative human tendon stem/progenitor cells. Biomaterials, 2020, 236, 119802.	5.7	40
36	Spectrum of Tendon Pathologies: Triggers, Trails and End-State. International Journal of Molecular Sciences, 2020, 21, 844.	1.8	72

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37	Physioxia Has a Beneficial Effect on Cartilage Matrix Production in Interleukin-1 Beta-Inhibited Mesenchymal Stem Cell Chondrogenesis. Cells, 2019, 8, 936.	1.8	29
38	The Importance of Physioxia in Mesenchymal Stem Cell Chondrogenesis and the Mechanisms Controlling Its Response. International Journal of Molecular Sciences, 2019, 20, 484.	1.8	56
39	Cells under pressure â€“ the relationship between hydrostatic pressure and mesenchymal stem cell chondrogenesis. , 2019, 36, 360-381.		48
40	Tenomodulin regulates matrix remodeling of mouse tendon stem/progenitor cells in an exÂvivo collagen I gel model. Biochemical and Biophysical Research Communications, 2019, 512, 691-697.	1.0	21
41	Characterization of human telomerase reverse transcriptase immortalized anterior cruciate ligament cell lines. Biomedical Journal, 2019, 42, 371-380.	1.4	7
42	Age related changes in cell stiffness of tendon stem/progenitor cells and a rejuvenating effect of ROCK-inhibition. Biochemical and Biophysical Research Communications, 2019, 509, 839-844.	1.0	24
43	Femtosecond laser printing of living human cells. , 2019, , .		1
44	Functionalized thermosensitive hydrogel combined with tendon stem/progenitor cells as injectable cell delivery carrier for tendon tissue engineering. Biomedical Materials (Bristol), 2018, 13, 034107.	1.7	33
45	Rescue plan for Achilles: Therapeutics steering the fate and functions of stem cells in tendon wound healing. Advanced Drug Delivery Reviews, 2018, 129, 352-375.	6.6	106
46	Achilles tendon elastic properties remain decreased in long term after rupture. Knee Surgery, Sports Traumatology, Arthroscopy, 2018, 26, 2080-2087.	2.3	33
47	In Vitro Weight-Loaded Cell Models for Understanding Mechanodependent Molecular Pathways Involved in Orthodontic Tooth Movement: A Systematic Review. Stem Cells International, 2018, 2018, 1-17.	1.2	22
48	Tenomodulin loss-of-function is associated with intervertebral disk degeneration. Osteoarthritis and Cartilage, 2018, 26, S420.	0.6	0
49	In Vitro Comparison of 2D-Cell Culture and 3D-Cell Sheets of Scleraxis-Programmed Bone Marrow Derived Mesenchymal Stem Cells to Primary Tendon Stem/Progenitor Cells for Tendon Repair. International Journal of Molecular Sciences, 2018, 19, 2272.	1.8	18
50	Understanding Tendons: Lessons from Transgenic Mouse Models. Stem Cells and Development, 2018, 27, 1161-1174.	1.1	22
51	Boosting tendon repair: interplay of cells, growth factors and scaffold-free and gel-based carriers. Journal of Experimental Orthopaedics, 2018, 5, 1.	0.8	72
52	Prospective Evaluation of Changes in Elastic Properties of Ruptured Achilles Tendons by Shear Wave Elastography. Ultraschall in Der Medizin, 2018, 39, .	0.8	0
53	Prolotherapy Induces an Inflammatory Response in Human Tenocytes In Vitro. Clinical Orthopaedics and Related Research, 2017, 475, 2117-2127.	0.7	24
54	The effect of estrogen on tendon and ligament metabolism and function. Journal of Steroid Biochemistry and Molecular Biology, 2017, 172, 106-116.	1.2	57

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55	Tenomodulin is Required for Tendon Endurance Running and Collagen I Fibril Adaptation to Mechanical Load. EBioMedicine, 2017, 20, 240-254.	2.7	78
56	A cell culture technique for human epiretinal membranes to describe cell behavior and membrane contraction in vitro. Graefe's Archive for Clinical and Experimental Ophthalmology, 2017, 255, 2147-2155.	1.0	10
57	Mysteries Behind the Cellular Content of Tendon Tissues. Journal of the American Academy of Orthopaedic Surgeons, The, 2017, 25, e289-e290.	1.1	6
58	Tenomodulin is essential for prevention of adipocyte accumulation and fibrovascular scar formation during early tendon healing. Cell Death and Disease, 2017, 8, e3116-e3116.	2.7	83
59	Wnt/Î²-catenin signaling suppresses expressions of Scx, Mkx, and Tnmd in tendon-derived cells. PLoS ONE, 2017, 12, e0182051.	1.1	44
60	Tendon injuries. EFORT Open Reviews, 2017, 2, 332-342.	1.8	157
61	The Power of Experimental Models for Understanding the Genetic Basis for Superior Endurance Running. MOJ Sports Medicine, 2017, 1, .	0.1	0
62	Scaffold-free Scleraxis-programmed tendon progenitors aid in significantly enhanced repair of full-size Achilles tendon rupture. Nanomedicine, 2016, 11, 1153-1167.	1.7	47
63	TENOgenic MODULating INsider factor: systematic assessment on the functions of tenomodulin gene. Gene, 2016, 587, 1-17.	1.0	67
64	Periodontal ligament cells as alternative source for cell-based therapy of tendon injuries: in vivo study of full-size Achilles tendon defect in a rat model. , 2016, 32, 228-240.		27
65	Mechanical stimulation of human tendon stem/progenitor cells results in upregulation of matrix proteins, integrins and MMPs, and activation of p38 and ERK1/2 kinases. BMC Molecular Biology, 2015, 16, 6.	3.0	82
66	Decoding Cytoskeleton-Anchored and Non-Anchored Receptors from Single-Cell Adhesion Force Data. Biophysical Journal, 2015, 109, 1330-1333.	0.2	32
67	Biologics for tendon repair. Advanced Drug Delivery Reviews, 2015, 84, 222-239.	6.6	500
68	Assessment of essential characteristics of two different scaffolds for tendon in situ regeneration. Knee Surgery, Sports Traumatology, Arthroscopy, 2015, 23, 1239-1246.	2.3	14
69	Loss of Tenomodulin Results in Reduced Self-Renewal and Augmented Senescence of Tendon Stem/Progenitor Cells. Stem Cells and Development, 2015, 24, 597-609.	1.1	88
70	Activation of EphA4 and EphB2 Reverse Signaling Restores the Age-Associated Reduction of Self-Renewal, Migration, and Actin Turnover in Human Tendon Stem/Progenitor Cells. Frontiers in Aging Neuroscience, 2015, 7, 246.	1.7	35
71	Mesenchymal stem cells from osteoporotic patients reveal reduced migration and invasion upon stimulation with BMP-2 or BMP-7. Biochemical and Biophysical Research Communications, 2014, 452, 118-123.	1.0	37
72	Influence of osteogenic stimulation and VEGF treatment on in vivo bone formation in hMSC-seeded cancellous bone scaffolds. BMC Musculoskeletal Disorders, 2014, 15, 350.	0.8	8

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73	Arthritic Periosteal Tissue From Joint Replacement Surgery: A Novel, Autologous Source of Stem Cells. Stem Cells Translational Medicine, 2014, 3, 308-317.	1.6	28
74	Integrin signaling in skeletal development and function. Birth Defects Research Part C: Embryo Today Reviews, 2014, 102, 13-36.	3.6	42
75	Attenuation of human lens epithelial cell spreading, migration and contraction via downregulation of the PI3K/Akt pathway. Graefe's Archive for Clinical and Experimental Ophthalmology, 2014, 252, 285-292.	1.0	18
76	EGFR-Blockade With Erlotinib Reduces EGF and TGF-Î²2 Expression and the Actin-Cytoskeleton Which Influences Different Aspects of Cellular Migration in Lens Epithelial cells. Current Eye Research, 2014, 39, 1000-1012.	0.7	20
77	MicroRNA-23a mediates post-transcriptional regulation of CXCL12 in bone marrow stromal cells. Haematologica, 2014, 99, 997-1005.	1.7	28
78	Comparison of tenocytes and mesenchymal stem cells seeded on biodegradable scaffolds in a full-size tendon defect model. Journal of Materials Science: Materials in Medicine, 2013, 24, 211-220.	1.7	50
79	EGF receptor inhibitor erlotinib as a potential pharmacological prophylaxis for posterior capsule opacification. Graefe's Archive for Clinical and Experimental Ophthalmology, 2013, 251, 1529-1540.	1.0	20
80	Overexpression of dnIKK in mesenchymal stem cells leads to increased migration and decreased invasion upon TNFÎ± stimulation. Biochemical and Biophysical Research Communications, 2013, 436, 265-270.	1.0	11
81	Solid-supported lipid bilayers to drive stem cell fate and tissue architecture using periosteum derived progenitor cells. Biomaterials, 2013, 34, 1878-1887.	5.7	51
82	MiR-134-mediated Î²1 integrin expression and function in mesenchymal stem cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 3396-3404.	1.9	14
83	Uncovering the cellular and molecular changes in tendon stem/progenitor cells attributed to tendon aging and degeneration. Aging Cell, 2013, 12, 988-999.	3.0	169
84	Probing the Interaction Forces of Prostate Cancer Cells with Collagen I and Bone Marrow Derived Stem Cells on the Single Cell Level. PLoS ONE, 2013, 8, e57706.	1.1	20
85	Tenomodulin Expression in the Periodontal Ligament Enhances Cellular Adhesion. PLoS ONE, 2013, 8, e60203.	1.1	25
86	Multiscale computational and experimental approaches to elucidate bone and ligament mechanobiology using the ulna-radius-interosseous membrane construct as a model system. Technology and Health Care, 2012, 20, 363-378.	0.5	9
87	Increased stemness and migration of human mesenchymal stem cells in hypoxia is associated with altered integrin expression. Biochemical and Biophysical Research Communications, 2012, 423, 379-385.	1.0	86
88	Collagen type I and decorin expression in tenocytes depend on the cell isolation method. BMC Musculoskeletal Disorders, 2012, 13, 140.	0.8	34
89	Conversion of Human Bone Marrow-Derived Mesenchymal Stem Cells into Tendon Progenitor Cells by Ectopic Expression of Scleraxis. Stem Cells and Development, 2012, 21, 846-858.	1.1	127
90	In situ guided tissue regeneration in musculoskeletal diseases and aging. Cell and Tissue Research, 2012, 347, 725-735.	1.5	24

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91	Regulation of Î²1-Integrin by Mir-134 in Mesenchymal Stromal Cells â€“ Implications for Mesenchymal Stromal Cell Adherence and Hematopoietic Stem Cell Interaction. Blood, 2012, 120, 3459-3459.	0.6	0
92	Integrins Î±2Î²1 and Î±11Î²1 regulate the survival of mesenchymal stem cells on collagen I. Cell Death and Disease, 2011, 2, e186-e186.	2.7	134
93	Bupivacaine, ropivacaine, and morphine: comparison of toxicity on human hamstring-derived stem/progenitor cells. Knee Surgery, Sports Traumatology, Arthroscopy, 2011, 19, 2138-2144.	2.3	38
94	Membrane-Based Cultures Generate Scaffold-Free Neocartilage In Vitro: Influence of Growth Factors. Tissue Engineering - Part A, 2010, 16, 513-521.	1.6	21
95	Effect of collagen I and fibronectin on the adhesion, elasticity and cytoskeletal organization of prostate cancer cells. Biochemical and Biophysical Research Communications, 2010, 402, 361-366.	1.0	50
96	Hypoxic Preconditioning of Human Mesenchymal Stem Cells Overcomes Hypoxia-Induced Inhibition of Osteogenic Differentiation. Tissue Engineering - Part A, 2010, 16, 153-164.	1.6	91
97	Interactions of Human Endothelial and Multipotent Mesenchymal Stem Cells in Cocultures. Open Biomedical Engineering Journal, 2010, 4, 190-198.	0.7	15
98	Establishment of immortalized periodontal ligament progenitor cell line and its behavioural analysis on smooth and rough titanium surface. , 2010, 19, 228-241.		41
99	A small scale cell culture system to analyze mechanobiology using reporter gene constructs and polyurethane dishes. , 2010, 20, 344-355.		20
100	Morphological and immunocytochemical characteristics indicate the yield of early progenitors and represent a quality control for human mesenchymal stem cell culturing. Journal of Anatomy, 2009, 214, 759-767.	0.9	117
101	IKK-2 is required for TNF-Î±-induced invasion and proliferation of human mesenchymal stem cells. Journal of Molecular Medicine, 2008, 86, 1183-1192.	1.7	98
102	Researching into the cellular shape, volume and elasticity of mesenchymal stem cells, osteoblasts and osteosarcoma cells by atomic force microscopy. Journal of Cellular and Molecular Medicine, 2008, 12, 537-552.	1.6	172
103	Introducing a singleâ€cellâ€derived human mesenchymal stem cell line expressing hTERT after lentiviral gene transfer. Journal of Cellular and Molecular Medicine, 2008, 12, 1347-1359.	1.6	177
104	Local Tenomodulin Absence, Angiogenesis, and Matrix Metalloproteinase Activation Are Associated With the Rupture of the Chordae Tendineae Cordis. Circulation, 2008, 118, 1737-1747.	1.6	45
105	Mesenchymal Stem Cells and Their Cell Surface Receptors. Current Rheumatology Reviews, 2008, 4, 155-160.	0.4	42
106	Influence ofIn VitroCultivation on the Integration of Cell-Matrix Constructs After Subcutaneous Implantation. Tissue Engineering, 2007, 13, 1059-1067.	4.9	25
107	Quantitative polymerase chain reaction as a reliable method to determine functional lentiviral titer afterex vivo gene transfer in human mesenchymal stem cells. Journal of Gene Medicine, 2007, 9, 585-595.	1.4	20
108	Human mesenchymal stem cells at the single-cell level: simultaneous seven-colour immunofluorescence. Journal of Anatomy, 2007, 210, 592-599.	0.9	42

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109	Human mesenchymal stem cells in contact with their environment: surface characteristics and the integrin system. Journal of Cellular and Molecular Medicine, 2007, 11, 21-38.	1.6	274
110	Tenomodulin Is Necessary for Tenocyte Proliferation and Tendon Maturation. Molecular and Cellular Biology, 2005, 25, 699-705.	1.1	365
111	Integrin-linked kinase (ILK) is required for polarizing the epiblast, cell adhesion, and controlling actin accumulation. Genes and Development, 2003, 17, 926-940.	2.7	348