

Denitsa Docheva

List of Publications by Year in descending order

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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	Biologics for tendon repair. <i>Advanced Drug Delivery Reviews</i> , 2015, 84, 222-239.	6.6	500
2	Tenomodulin Is Necessary for Tenocyte Proliferation and Tendon Maturation. <i>Molecular and Cellular Biology</i> , 2005, 25, 699-705.	1.1	365
3	Integrin-linked kinase (ILK) is required for polarizing the epiblast, cell adhesion, and controlling actin accumulation. <i>Genes and Development</i> , 2003, 17, 926-940.	2.7	348
4	Human mesenchymal stem cells in contact with their environment: surface characteristics and the integrin system. <i>Journal of Cellular and Molecular Medicine</i> , 2007, 11, 21-38.	1.6	274
5	Introducing a single cell derived human mesenchymal stem cell line expressing hTERT after lentiviral gene transfer. <i>Journal of Cellular and Molecular Medicine</i> , 2008, 12, 1347-1359.	1.6	177
6	Researching into the cellular shape, volume and elasticity of mesenchymal stem cells, osteoblasts and osteosarcoma cells by atomic force microscopy. <i>Journal of Cellular and Molecular Medicine</i> , 2008, 12, 537-552.	1.6	172
7	Uncovering the cellular and molecular changes in tendon stem/progenitor cells attributed to tendon aging and degeneration. <i>Aging Cell</i> , 2013, 12, 988-999.	3.0	169
8	Tendon injuries. <i>EFORT Open Reviews</i> , 2017, 2, 332-342.	1.8	157
9	Integrins $\alpha 2 \beta 1$ and $\alpha 11 \beta 1$ regulate the survival of mesenchymal stem cells on collagen I. <i>Cell Death and Disease</i> , 2011, 2, e186-e186.	2.7	134
10	Conversion of Human Bone Marrow-Derived Mesenchymal Stem Cells into Tendon Progenitor Cells by Ectopic Expression of Scleraxis. <i>Stem Cells and Development</i> , 2012, 21, 846-858.	1.1	127
11	Morphological and immunocytochemical characteristics indicate the yield of early progenitors and represent a quality control for human mesenchymal stem cell culturing. <i>Journal of Anatomy</i> , 2009, 214, 759-767.	0.9	117
12	Recent advances and future perspectives of sol-gel derived porous bioactive glasses: a review. <i>RSC Advances</i> , 2020, 10, 33782-33835.	1.7	108
13	Rescue plan for Achilles: Therapeutics steering the fate and functions of stem cells in tendon wound healing. <i>Advanced Drug Delivery Reviews</i> , 2018, 129, 352-375.	6.6	106
14	IKK-2 is required for TNF- α -induced invasion and proliferation of human mesenchymal stem cells. <i>Journal of Molecular Medicine</i> , 2008, 86, 1183-1192.	1.7	98
15	Hypoxic Preconditioning of Human Mesenchymal Stem Cells Overcomes Hypoxia-Induced Inhibition of Osteogenic Differentiation. <i>Tissue Engineering - Part A</i> , 2010, 16, 153-164.	1.6	91
16	Loss of Tenomodulin Results in Reduced Self-Renewal and Augmented Senescence of Tendon Stem/Progenitor Cells. <i>Stem Cells and Development</i> , 2015, 24, 597-609.	1.1	88
17	Increased stemness and migration of human mesenchymal stem cells in hypoxia is associated with altered integrin expression. <i>Biochemical and Biophysical Research Communications</i> , 2012, 423, 379-385.	1.0	86
18	Tenomodulin is essential for prevention of adipocyte accumulation and fibrovascular scar formation during early tendon healing. <i>Cell Death and Disease</i> , 2017, 8, e3116-e3116.	2.7	83

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19	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. <i>BMC Molecular Biology</i> , 2015, 16, 6.	3.0	82
20	Tenomodulin is Required for Tendon Endurance Running and Collagen I Fibril Adaptation to Mechanical Load. <i>EBioMedicine</i> , 2017, 20, 240-254.	2.7	78
21	Boosting tendon repair: interplay of cells, growth factors and scaffold-free and gel-based carriers. <i>Journal of Experimental Orthopaedics</i> , 2018, 5, 1.	0.8	72
22	Spectrum of Tendon Pathologies: Triggers, Trails and End-State. <i>International Journal of Molecular Sciences</i> , 2020, 21, 844.	1.8	72
23	TENOgenic MODULating INsider factor: systematic assessment on the functions of tenomodulin gene. <i>Gene</i> , 2016, 587, 1-17.	1.0	67
24	Implantâ€boneâ€interface: Reviewing the impact of titanium surface modifications on osteogenic processes in vitro and in vivo. <i>Bioengineering and Translational Medicine</i> , 2022, 7, e10239.	3.9	66
25	The effect of estrogen on tendon and ligament metabolism and function. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2017, 172, 106-116.	1.2	57
26	The Importance of Physioxia in Mesenchymal Stem Cell Chondrogenesis and the Mechanisms Controlling Its Response. <i>International Journal of Molecular Sciences</i> , 2019, 20, 484.	1.8	56
27	Solid-supported lipid bilayers to drive stem cell fate and tissue architecture using periosteum derived progenitor cells. <i>Biomaterials</i> , 2013, 34, 1878-1887.	5.7	51
28	Effect of collagen I and fibronectin on the adhesion, elasticity and cytoskeletal organization of prostate cancer cells. <i>Biochemical and Biophysical Research Communications</i> , 2010, 402, 361-366.	1.0	50
29	Comparison of tenocytes and mesenchymal stem cells seeded on biodegradable scaffolds in a full-size tendon defect model. <i>Journal of Materials Science: Materials in Medicine</i> , 2013, 24, 211-220.	1.7	50
30	Cells under pressure â€“ the relationship between hydrostatic pressure and mesenchymal stem cell chondrogenesis. , 2019, 36, 360-381.		48
31	Scaffold-free Scleraxis-programmed tendon progenitors aid in significantly enhanced repair of full-size Achilles tendon rupture. <i>Nanomedicine</i> , 2016, 11, 1153-1167.	1.7	47
32	Local Tenomodulin Absence, Angiogenesis, and Matrix Metalloproteinase Activation Are Associated With the Rupture of the Chordae Tendineae Cordis. <i>Circulation</i> , 2008, 118, 1737-1747.	1.6	45
33	Wnt/ β -catenin signaling suppresses expressions of Scx, Mlx, and Tnmd in tendon-derived cells. <i>PLoS ONE</i> , 2017, 12, e0182051.	1.1	44
34	Human mesenchymal stem cells at the single-cell level: simultaneous seven-colour immunofluorescence. <i>Journal of Anatomy</i> , 2007, 210, 592-599.	0.9	42
35	Integrin signaling in skeletal development and function. <i>Birth Defects Research Part C: Embryo Today Reviews</i> , 2014, 102, 13-36.	3.6	42
36	Mesenchymal Stem Cells and Their Cell Surface Receptors. <i>Current Rheumatology Reviews</i> , 2008, 4, 155-160.	0.4	42

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37	Establishment of immortalized periodontal ligament progenitor cell line and its behavioural analysis on smooth and rough titanium surface. , 2010, 19, 228-241.		41
38	Three-dimensional self-assembling nanofiber matrix rejuvenates aged/degenerative human tendon stem/progenitor cells. <i>Biomaterials</i> , 2020, 236, 119802.	5.7	40
39	Bupivacaine, ropivacaine, and morphine: comparison of toxicity on human hamstring-derived stem/progenitor cells. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2011, 19, 2138-2144.	2.3	38
40	Mesenchymal stem cells from osteoporotic patients reveal reduced migration and invasion upon stimulation with BMP-2 or BMP-7. <i>Biochemical and Biophysical Research Communications</i> , 2014, 452, 118-123.	1.0	37
41	Loss of tenomodulin expression is a risk factor for age-related intervertebral disc degeneration. <i>Aging Cell</i> , 2020, 19, e13091.	3.0	36
42	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. <i>Frontiers in Aging Neuroscience</i> , 2015, 7, 246.	1.7	35
43	Collagen type I and decorin expression in tenocytes depend on the cell isolation method. <i>BMC Musculoskeletal Disorders</i> , 2012, 13, 140.	0.8	34
44	Functionalized thermosensitive hydrogel combined with tendon stem/progenitor cells as injectable cell delivery carrier for tendon tissue engineering. <i>Biomedical Materials (Bristol)</i> , 2018, 13, 034107.	1.7	33
45	Achilles tendon elastic properties remain decreased in long term after rupture. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2018, 26, 2080-2087.	2.3	33
46	Decoding Cytoskeleton-Anchored and Non-Anchored Receptors from Single-Cell Adhesion Force Data. <i>Biophysical Journal</i> , 2015, 109, 1330-1333.	0.2	32
47	Physioxia Has a Beneficial Effect on Cartilage Matrix Production in Interleukin-1 Beta-Inhibited Mesenchymal Stem Cell Chondrogenesis. <i>Cells</i> , 2019, 8, 936.	1.8	29
48	Arthritic Periosteal Tissue From Joint Replacement Surgery: A Novel, Autologous Source of Stem Cells. <i>Stem Cells Translational Medicine</i> , 2014, 3, 308-317.	1.6	28
49	MicroRNA-23a mediates post-transcriptional regulation of CXCL12 in bone marrow stromal cells. <i>Haematologica</i> , 2014, 99, 997-1005.	1.7	28
50	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
51	Influence of In Vitro Cultivation on the Integration of Cell-Matrix Constructs After Subcutaneous Implantation. <i>Tissue Engineering</i> , 2007, 13, 1059-1067.	4.9	25
52	Aged Tendon Stem/Progenitor Cells Are Less Competent to Form 3D Tendon Organoids Due to Cell Autonomous and Matrix Production Deficits. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 406.	2.0	25
53	An anisotropic nanocomposite hydrogel guides aligned orientation and enhances tenogenesis of human tendon stem/progenitor cells. <i>Biomaterials Science</i> , 2021, 9, 1237-1245.	2.6	25
54	Tenomodulin Expression in the Periodontal Ligament Enhances Cellular Adhesion. <i>PLoS ONE</i> , 2013, 8, e60203.	1.1	25

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55	In situ guided tissue regeneration in musculoskeletal diseases and aging. <i>Cell and Tissue Research</i> , 2012, 347, 725-735.	1.5	24
56	Prolotherapy Induces an Inflammatory Response in Human Tenocytes In Vitro. <i>Clinical Orthopaedics and Related Research</i> , 2017, 475, 2117-2127.	0.7	24
57	Age related changes in cell stiffness of tendon stem/progenitor cells and a rejuvenating effect of ROCK-inhibition. <i>Biochemical and Biophysical Research Communications</i> , 2019, 509, 839-844.	1.0	24
58	<i>In Vitro</i> Weight-Loaded Cell Models for Understanding Mechanodependent Molecular Pathways Involved in Orthodontic Tooth Movement: A Systematic Review. <i>Stem Cells International</i> , 2018, 2018, 1-17.	1.2	22
59	Understanding Tendons: Lessons from Transgenic Mouse Models. <i>Stem Cells and Development</i> , 2018, 27, 1161-1174.	1.1	22
60	Membrane-Based Cultures Generate Scaffold-Free Neocartilage In Vitro: Influence of Growth Factors. <i>Tissue Engineering - Part A</i> , 2010, 16, 513-521.	1.6	21
61	Tenomodulin regulates matrix remodeling of mouse tendon stem/progenitor cells in an <i>ex vivo</i> collagen I gel model. <i>Biochemical and Biophysical Research Communications</i> , 2019, 512, 691-697.	1.0	21
62	Quantitative polymerase chain reaction as a reliable method to determine functional lentiviral titer after <i>ex vivo</i> gene transfer in human mesenchymal stem cells. <i>Journal of Gene Medicine</i> , 2007, 9, 585-595.	1.4	20
63	EGF receptor inhibitor erlotinib as a potential pharmacological prophylaxis for posterior capsule opacification. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 2013, 251, 1529-1540.	1.0	20
64	Probing the Interaction Forces of Prostate Cancer Cells with Collagen I and Bone Marrow Derived Stem Cells on the Single Cell Level. <i>PLoS ONE</i> , 2013, 8, e57706.	1.1	20
65	EGFR-Blockade With Erlotinib Reduces EGF and TGF- β 2 Expression and the Actin-Cytoskeleton Which Influences Different Aspects of Cellular Migration in Lens Epithelial cells. <i>Current Eye Research</i> , 2014, 39, 1000-1012.	0.7	20
66	A small scale cell culture system to analyze mechanobiology using reporter gene constructs and polyurethane dishes. , 2010, 20, 344-355.		20
67	Single Cell Bioprinting with Ultrashort Laser Pulses. <i>Advanced Functional Materials</i> , 2021, 31, 2100066.	7.8	19
68	Attenuation of human lens epithelial cell spreading, migration and contraction via downregulation of the PI3K/Akt pathway. <i>Graefe's Archive for Clinical and Experimental Ophthalmology</i> , 2014, 252, 285-292.	1.0	18
69	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. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2272.	1.8	18
70	Tenomodulin knockout mice exhibit worse late healing outcomes with augmented trauma-induced heterotopic ossification of Achilles tendon. <i>Cell Death and Disease</i> , 2021, 12, 1049.	2.7	17
71	Physioxia Expanded Bone Marrow Derived Mesenchymal Stem Cells Have Improved Cartilage Repair in an Early Osteoarthritic Focal Defect Model. <i>Biology</i> , 2020, 9, 230.	1.3	16
72	Interactions of Human Endothelial and Multipotent Mesenchymal Stem Cells in Cocultures. <i>Open Biomedical Engineering Journal</i> , 2010, 4, 190-198.	0.7	15

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73	MiR-134-mediated α 21 integrin expression and function in mesenchymal stem cells. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2013, 1833, 3396-3404.	1.9	14
74	Assessment of essential characteristics of two different scaffolds for tendon in situ regeneration. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2015, 23, 1239-1246.	2.3	14
75	Effect of static compressive force on in vitro cultured PDL fibroblasts: monitoring of viability and gene expression over 6 days. <i>Clinical Oral Investigations</i> , 2020, 24, 2497-2511.	1.4	13
76	Bioengineered 3D Living Fibers as In Vitro Human Tissue Models of Tendon Physiology and Pathology. <i>Advanced Healthcare Materials</i> , 2022, 11, .	3.9	13
77	Overexpression of dnIKK in mesenchymal stem cells leads to increased migration and decreased invasion upon TNF α stimulation. <i>Biochemical and Biophysical Research Communications</i> , 2013, 436, 265-270.	1.0	11
78	Rebuilding Tendons: A Concise Review on the Potential of Dermal Fibroblasts. <i>Cells</i> , 2020, 9, 2047.	1.8	11
79	Cell-based treatment options facilitate regeneration of cartilage, ligaments and meniscus in demanding conditions of the knee by a whole joint approach. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2022, 30, 1138-1150.	2.3	11
80	A cell culture technique for human epiretinal membranes to describe cell behavior and membrane contraction in vitro. <i>Graefes Archive for Clinical and Experimental Ophthalmology</i> , 2017, 255, 2147-2155.	1.0	10
81	A Human Periodontal Ligament Fibroblast Cell Line as a New Model to Study Periodontal Stress. <i>International Journal of Molecular Sciences</i> , 2020, 21, 7961.	1.8	10
82	Changes of Material Elastic Properties during Healing of Ruptured Achilles Tendons Measured with Shear Wave Elastography: A Pilot Study. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3427.	1.8	10
83	Attenuation of Hypertrophy in Human MSCs via Treatment with a Retinoic Acid Receptor Inverse Agonist. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1444.	1.8	10
84	Multiscale computational and experimental approaches to elucidate bone and ligament mechanobiology using the ulna-radius-interosseous membrane construct as a model system. <i>Technology and Health Care</i> , 2012, 20, 363-378.	0.5	9
85	Influence of osteogenic stimulation and VEGF treatment on in vivo bone formation in hMSC-seeded cancellous bone scaffolds. <i>BMC Musculoskeletal Disorders</i> , 2014, 15, 350.	0.8	8
86	Tenogenic Contribution to Skeletal Muscle Regeneration: The Secretome of Scleraxis Overexpressing Mesenchymal Stem Cells Enhances Myogenic Differentiation In Vitro. <i>International Journal of Molecular Sciences</i> , 2020, 21, 1965.	1.8	8
87	Nano and micro-forms of calcium titanate: Synthesis, properties and application. <i>Open Ceramics</i> , 2021, 8, 100177.	1.0	8
88	Fibronectin Adherent Cell Populations Derived From Avascular and Vascular Regions of the Meniscus Have Enhanced Clonogenicity and Differentiation Potential Under Physioxia. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 789621.	2.0	8
89	Characterization of human telomerase reverse transcriptase immortalized anterior cruciate ligament cell lines. <i>Biomedical Journal</i> , 2019, 42, 371-380.	1.4	7
90	The future of basic science in orthopaedics and traumatology: Cassandra or Prometheus?. <i>European Journal of Medical Research</i> , 2021, 26, 56.	0.9	7

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91	Mysteries Behind the Cellular Content of Tendon Tissues. Journal of the American Academy of Orthopaedic Surgeons, The, 2017, 25, e289-e290.	1.1	6
92	Dental follicle cell differentiation towards periodontal ligament-like tissue in a self-assembly three-dimensional organoid model. , 2021, 42, 20-33.		6
93	Extending Single Cell Bioprinting from Femtosecond to Picosecond Laser Pulse Durations. Micromachines, 2021, 12, 1172.	1.4	6
94	Porous micro/nano structured oxidic titanium surface decorated with silicon monoxide. Surfaces and Interfaces, 2021, 26, 101304.	1.5	6
95	Rifampicin restores extracellular organic matrix formation and mineralization of osteoblasts after intracellular <i>Staphylococcus aureus</i> infection. Bone and Joint Research, 2022, 11, 327-341.	1.3	5
96	Corrosion behavior of titanium silicide surface with hydrogen peroxide: Formation of sub- μ m TiO ₂ -based spheres, nanocomposite TiO ₂ /SiO ₂ phases, and mesoporous TiO ₂ /SiO ₂ network. Applied Surface Science, 2020, 529, 147133.	3.1	3
97	<i>Tenomodulin</i> and <i>Chondromodulin-1</i> Are Both Required to Maintain Biomechanical Function and Prevent Intervertebral Disc Degeneration. Cartilage, 2021, 13, 604S-614S.	1.4	3
98	Micro/nano-structured titanium surfaces modified by NaOH-CaCl ₂ -heat-water treatment: Biomimetic calcium phosphate deposition and hMSCs behavior. Materials Chemistry and Physics, 2021, 272, 124896.	2.0	3
99	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
100	Inadequate tissue mineralization promotes cancer cell attachment. PLoS ONE, 2020, 15, e0237116.	1.1	2
101	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
102	Quantitative Analysis of Surface Contouring with Pulsed Bipolar Radiofrequency on Thin Chondromalacic Cartilage. BioMed Research International, 2020, 2020, 1-8.	0.9	1
103	Femtosecond laser printing of living human cells. , 2019, , .		1
104	Tenomodulin loss-of-function is associated with intervertebral disk degeneration. Osteoarthritis and Cartilage, 2018, 26, S420.	0.6	0
105	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
106	Establishment of Alkaline Phosphatase deficient odontogenous cell lines to analyze dental aspects of hypophosphatasia. , 2021, 30, .		0
107	The importance of TNAP/Tnap for dental development in human cell culture and in zebrafish. Bone Reports, 2021, 14, 101006.	0.2	0
108	Printing of living cells by using ultra-short laser pulses. , 2021, , .		0

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109	Regulation of α 1-Integrin by Mir-134 in Mesenchymal Stromal Cells – Implications for Mesenchymal Stromal Cell Adherence and Hematopoietic Stem Cell Interaction. <i>Blood</i> , 2012, 120, 3459-3459.	0.6	0
110	The Power of Experimental Models for Understanding the Genetic Basis for Superior Endurance Running. <i>MOJ Sports Medicine</i> , 2017, 1, .	0.1	0
111	Prospective Evaluation of Changes in Elastic Properties of Ruptured Achilles Tendons by Shear Wave Elastography. <i>Ultraschall in Der Medizin</i> , 2018, 39, .	0.8	0