Cornelia Neidlinger-Wilke

List of Publications by Year
in descending order

40 papers	2,658 citations	218677 26 h-index	345221 36 g-index
41 all docs	41 docs citations	41 times ranked	2594 citing authors

#	Article	IF	Citations
1	Effects of Mechanical Factors on the Fracture Healing Process. Clinical Orthopaedics and Related Research, 1998, 355S, S132-S147.	1.5	552
2	Cyclic stretching of human osteoblasts affects proliferation and metabolism: A new experimental method and its application. Journal of Orthopaedic Research, 1994, 12, 70-78.	2.3	229
3	Proliferation of human-derived osteoblast-like cells depends on the cycle number and frequency of uniaxial strain. Journal of Biomechanics, 2002, 35, 873-880.	2.1	152
4	Behavior of Mesenchymal Stem Cells in the Chemical Microenvironment of the Intervertebral Disc. Spine, 2008, 33, 1843-1849.	2.0	145
5	Validity and interobserver agreement of a new radiographic grading system for intervertebral disc degeneration: Part I. Lumbar spine. European Spine Journal, 2006, 15, 720-730.	2.2	135
6	Influence of extracellular osmolarity and mechanical stimulation on gene expression of intervertebral disc cells. Journal of Orthopaedic Research, 2007, 25, 1513-1522.	2.3	132
7	Mechanical loading of the intervertebral disc: from the macroscopic to the cellular level. European Spine Journal, 2014, 23, 333-343.	2.2	130
8	Human osteoblasts from younger normal and osteoporotic donors show differences in proliferation and TGFÎ²-release in response to cyclic strain. Journal of Biomechanics, 1995, 28, 1411-1418.	2.1	110
9	Regulation of gene expression in intervertebral disc cells by low and high hydrostatic pressure. European Spine Journal, 2006, 15, 372-378.	2.2	100
10	Is a collagen scaffold for a tissue engineered nucleus replacement capable of restoring disc height and stability in an animal model?. European Spine Journal, 2006, 15, 433-438.	2.2	95
11	Validity and interobserver agreement of a new radiographic grading system for intervertebral disc degeneration: Part II. Cervical spine. European Spine Journal, 2006, 15, 732-741.	2.2	85
12	Interactions of environmental conditions and mechanical loads have influence on matrix turnover by nucleus pulposus cells. Journal of Orthopaedic Research, 2012, 30, 112-121.	2.3	76
13	A three-dimensional collagen matrix as a suitable culture system for the comparison of cyclic strain and hydrostatic pressure effects on intervertebral disc cells. Journal of Neurosurgery: Spine, 2005, 2, 457-465.	1.7	73
14	Anti-inflammatory Chitosan/Poly-Î³-glutamic acid nanoparticles control inflammation while remodeling extracellular matrix in degenerated intervertebral disc. Acta Biomaterialia, 2016, 42, 168-179.	8.3	68
15	The mechanical response of the lumbar spine to different combinations of disc degenerative changes investigated using randomized poroelastic finite element models. European Spine Journal, 2011, 20, 563-571.	2.2	60
16	Ilizarov callus distraction produces systemic bone cell mitogens. Journal of Orthopaedic Research, 1995, 13, 629-638.	2.3	51
17	Immunomodulation of Human Mesenchymal Stem/Stromal Cells in Intervertebral Disc Degeneration. Spine, 2018, 43, E673-E682.	2.0	49
18	Cell sources for nucleus pulposus regeneration. European Spine Journal, 2014, 23, 364-374.	2.2	48

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19	Mitogens are increased in the systemic circulation during bone callus healing. Journal of Orthopaedic Research, 2003, 21, 320-325.	2.3	39
20	Role of the Complement System in the Response to Orthopedic Biomaterials. International Journal of Molecular Sciences, 2018, 19, 3367.	4.1	38
21	The effect of degenerative morphological changes of the intervertebral disc on the lumbar spine biomechanics: a poroelastic finite element investigation. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 729-739.	1.6	37
22	A Degenerative/Proinflammatory Intervertebral Disc Organ Culture: An Ex Vivo Model for Anti-inflammatory Drug and Cell Therapy. Tissue Engineering - Part C: Methods, 2016, 22, 8-19.	2.1	35
23	Cell orientation induced by extracellular signals. Cell Biochemistry and Biophysics, 1999, 30, 167-192.	1.8	31
24	Influence of low glucose supply on the regulation of gene expression by nucleus pulposus cells and their responsiveness to mechanical loading. Journal of Neurosurgery: Spine, 2010, 13, 535-542.	1.7	31
25	Effect of intervertebral disc degeneration on disc cell viability: a numerical investigation. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 328-337.	1.6	31
26	Mechanical Stimulation Alters Pleiotrophin and Aggrecan Expression by Human Intervertebral Disc Cells and Influences Their Capacity to Stimulate Endothelial Cell Migration. Spine, 2009, 34, 663-669.	2.0	27
27	Molecular Interactions Between Human Cartilaginous Endplates and Nucleus Pulposus Cells. Spine, 2014, 39, 1355-1364.	2.0	22
28	Evaluation of platelet-rich plasma and hydrostatic pressure regarding cell differentiation in nucleus pulposus tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2013, 7, 244-252.	2.7	21
29	GEORG SCHMORL PRIZE OF THE GERMAN SPINE SOCIETY (DWG) 2018: combined inflammatory and mechanical stress weakens the annulus fibrosus: evidences from a loaded bovine AF organ culture. European Spine Journal, 2019, 28, 922-933.	2.2	14
30	Terminal complement complex formation is associated with intervertebral disc degeneration. European Spine Journal, 2021, 30, 217-226.	2.2	11
31	Reduced Terminal Complement Complex Formation in Mice Manifests in Low Bone Mass and Impaired Fracture Healing. American Journal of Pathology, 2019, 189, 147-161.	3.8	9
32	Interleukin-1Î² and cathepsin D modulate formation of the terminal complement complex in cultured human disc tissue. European Spine Journal, 2021, 30, 2247-2256.	2.2	9
33	Interleukin-1Î² More Than Mechanical Loading Induces a Degenerative Phenotype in Human Annulus Fibrosus Cells, Partially Impaired by Anti-Proteolytic Activity of Mesenchymal Stem Cell Secretome. Frontiers in Bioengineering and Biotechnology, 2021, 9, 802789.	4.1	4
34	Can UVA-light-activated riboflavin-induced collagen crosslinking be transferred from ophthalmology to spine surgery? A feasibility study on bovine intervertebral disc. PLoS ONE, 2021, 16, e0252672.	2.5	3
35	Inverse numerical prediction of the transport properties of vertebral endplates in low back pain patients. Biomedizinische Technik, 2014, 59, 385-97.	0.8	2
36	Infrared attenuated total reflection spectroscopic surface analysis of bovineâ€tail intervertebral discs after UV â€lightâ€activated riboflavinâ€induced collagen crossâ€linking. Journal of Biophotonics, 2020, 13, e202000110.	2.3	2

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37	The Biology of Intervertebral Disc Degeneration. , 2010, , 3-10.		2
38	DIFFERENT OSMOLARITIES ALTER RESPONSIVITY OF ANNULUS CELLS TO INTERMITTENT MECHANICAL STRAIN. Journal of Biomechanics, 2008, 41, S348.	2.1	0
39	Fundamentals of mechanobiology. , 2022, , 71-95.		0
40	Biomechanics of the spine. , 2022, , 35-46.		0