Stefan Judex

List of Publications by Year
in descending order

66 papers	3,815 citations	126907 33 h-index	128289 60 g-index
66 all docs	66 docs citations	66 times ranked	3477 citing authors

#	Article	IF	Citations
1	Low-Level, High-Frequency Mechanical Signals Enhance Musculoskeletal Development of Young Women With Low BMD. Journal of Bone and Mineral Research, 2006, 21, 1464-1474.	2.8	299
2	The anabolic activity of bone tissue, suppressed by disuse, is normalized by brief exposure to extremely lowâ€magnitude mechanical stimuli. FASEB Journal, 2001, 15, 2225-2229.	0.5	251
3	Low-magnitude mechanical signals that stimulate bone formation in the ovariectomized rat are dependent on the applied frequency but not on the strain magnitude. Journal of Biomechanics, 2007, 40, 1333-1339.	2.1	251
4	Low-level mechanical vibrations can influence bone resorption and bone formation in the growing skeleton. Bone, 2006, 39, 1059-1066.	2.9	218
5	Genetic predisposition to low bone mass is paralleled by an enhanced sensitivity to signals anabolic to the skeleton. FASEB Journal, 2002, 16, 1280-1282.	0.5	138
6	Accretion of Bone Quantity and Quality in the Developing Mouse Skeleton. Journal of Bone and Mineral Research, 2007, 22, 1037-1045.	2.8	138
7	Low-level accelerations applied in the absence of weight bearing can enhance trabecular bone formation. Journal of Orthopaedic Research, 2007, 25, 732-740.	2.3	136
8	Osteocyte Apoptosis Caused by Hindlimb Unloading is Required to Trigger Osteocyte RANKL Production and Subsequent Resorption of Cortical and Trabecular Bone in Mice Femurs. Journal of Bone and Mineral Research, 2016, 31, 1356-1365.	2.8	135
9	Genetically Based Influences on the Site-Specific Regulation of Trabecular and Cortical Bone Morphology. Journal of Bone and Mineral Research, 2004, 19, 600-606.	2.8	127
10	Cell Mechanosensitivity to Extremely Low-Magnitude Signals Is Enabled by a LINCed Nucleus. Stem Cells, 2015, 33, 2063-2076.	3.2	122
11	Genetically Linked Site-Specificity of Disuse Osteoporosis. Journal of Bone and Mineral Research, 2004, 19, 607-613.	2.8	110
12	Is Bone's Response to Mechanical Signals Dominated by Gravitational Loading?. Medicine and Science in Sports and Exercise, 2009, 41, 2037-2043.	0.4	102
13	Low-Level Vibrations Retain Bone Marrow's Osteogenic Potential and Augment Recovery of Trabecular Bone during Reambulation. PLoS ONE, 2010, 5, e11178.	2.5	100
14	Vibration induced osteogenic commitment of mesenchymal stem cells is enhanced by cytoskeletal remodeling but not fluid shear. Journal of Biomechanics, 2013, 46, 2296-2302.	2.1	87
15	Adaptations of Trabecular Bone to Low Magnitude Vibrations Result in More Uniform Stress and Strain Under Load. Annals of Biomedical Engineering, 2003, 31, 12-20.	2.5	84
16	Disc herniations in astronauts: What causes them, and what does it tell us about herniation on earth?. European Spine Journal, 2016, 25, 144-154.	2.2	77
17	Combining high-resolution micro-computed tomography with material composition to define the quality of bone tissue. Current Osteoporosis Reports, 2003, 1, 11-19.	3.6	76
18	Low-Intensity Vibration Improves Angiogenesis and Wound Healing in Diabetic Mice. PLoS ONE, 2014, 9, e91355.	2.5	76

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19	High-frequency oscillatory motions enhance the simulated mechanical properties of non-weight bearing trabecular bone. Journal of Biomechanics, 2007, 40, 3404-3411.	2.1	67
20	Short applications of very low-magnitude vibrations attenuate expansion of the intervertebral disc during extended bed rest. Spine Journal, 2009, 9, 470-477.	1.3	63
21	Changes in intracortical microporosities induced by pharmaceutical treatment of osteoporosis as detected by high resolution micro-CT. Bone, 2012, 50, 596-604.	2.9	63
22	Reporting Guidelines for Whole-Body Vibration Studies in Humans, Animals and Cell Cultures: A Consensus Statement from an International Group of Experts. Biology, 2021, 10, 965.	2.8	62
23	Porous three-dimensional carbon nanotube scaffolds for tissue engineering. Journal of Biomedical Materials Research - Part A, 2015, 103, 3212-3225.	4.0	61
24	An Automated Algorithm to Detect the Trabecular-Cortical Bone Interface in Micro-Computed Tomographic Images. Calcified Tissue International, 2007, 81, 285-293.	3.1	57
25	Mechanical modulation of molecular signals which regulate anabolic and catabolic activity in bone tissue. Journal of Cellular Biochemistry, 2005, 94, 982-994.	2.6	54
26	Gap Junctional Communication in Osteocytes Is Amplified by Low Intensity Vibrations In Vitro. PLoS ONE, 2014, 9, e90840.	2.5	49
27	Genetic variations that regulate bone morphology in the male mouse skeleton do not define its susceptibility to mechanical unloading. Bone, 2004, 35, 1353-1360.	2.9	47
28	Separating Fluid Shear Stress from Acceleration during Vibrations In Vitro: Identification of Mechanical Signals Modulating the Cellular Response. Cellular and Molecular Bioengineering, 2012, 5, 266-276.	2.1	45
29	Musculoskeletal Changes in Mice from 20â€“50 cGy of Simulated Galactic Cosmic Rays. Radiation Research, 2009, 172, 21-29.	1.5	43
30	Imaging the Material Properties of Bone Specimens Using Reflection-Based Infrared Microspectroscopy. Analytical Chemistry, 2012, 84, 3607-3613.	6.5	43
31	Towards reporting guidelines of research using whole-body vibration as training or treatment regimen in human subjectsâ€"A Delphi consensus study. PLoS ONE, 2020, 15, e0235905.	2.5	43
32	Baseline bone morphometry and cellular activity modulate the degree of bone loss in the appendicular skeleton during disuse. Bone, 2008, 42, 341-349.	2.9	37
33	Brief daily exposure to low-intensity vibration mitigates the degradation of the intervertebral disc in a frequency-specific manner. Journal of Applied Physiology, 2011, 111, 1846-1853.	2.5	37
34	Extremely Small-magnitude Accelerations Enhance Bone Regeneration: A Preliminary Study. Clinical Orthopaedics and Related Research, 2009, 467, 1083-1091.	1.5	36
35	Cytoskeletal Configuration Modulates Mechanically Induced Changes in Mesenchymal Stem Cell Osteogenesis, Morphology, and Stiffness. Scientific Reports, 2016, 6, 34791.	3.3	36
36	Focal enhancement of the skeleton to exercise correlates to mesenchymal stem cell responsivity rather than peak external forces. Journal of Experimental Biology, 2015, 218, 3002-9.	1.7	34

#	ARTICLE	IF	CITATIONS
37	Trabecular bone recovers from mechanical unloading primarily by restoring its mechanical function rather than its morphology. Bone, 2014, 67, 122-129.	2.9	30
38	Effects of load-bearing exercise on skeletal structure and mechanics differ between outbred populations of mice. Bone, 2015, 72, 1-8.	2.9	30
39	Differences in bone structure and unloading-induced bone loss between C57BL/6N and C57BL/6J mice. Mammalian Genome, 2017, 28, 476-486.	2.2	29
40	Automated Separation of Visceral and Subcutaneous Adiposity in In Vivo Microcomputed Tomographies of Mice. Journal of Digital Imaging, 2009, 22, 222-231.	2.9	24
41	Diets High in Fat or Fructose Differentially Modulate Bone Health and Lipid Metabolism. Calcified Tissue International, 2017, 100, 20-28.	3.1	24
42	Genetic Loci That Control the Loss and Regain of Trabecular Bone During Unloading and Reambulation. Journal of Bone and Mineral Research, 2013, 28, 1537-1549.	2.8	21
43	Alterations in Collagen and Mineral Nanostructure Observed in Osteoporosis and Pharmaceutical Treatments Using Simultaneous Small- and Wide-Angle X-ray Scattering. Calcified Tissue International, 2014, 95, 446-456.	3.1	21
44	Low-intensity vibrations accelerate proliferation and alter macrophage phenotype in vitro. Journal of Biomechanics, 2016, 49, 793-796.	2.1	21
45	Low-Intensity Vibration Improves Muscle Healing in a Mouse Model of Laceration Injury. Journal of Functional Morphology and Kinesiology, 2018, 3, 1.	2.4	21
46	Twoâ€dimensional graphene oxideâ€reinforced porous biodegradable polymeric nanocomposites for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2019, 107, 1143-1153.	4.0	20
47	Multiple exposures to unloading decrease bone's responsivity but compound skeletal losses in C57BL/6 mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2012, 303, R159-R167.	1.8	17
48	Previous exposure to simulated microgravity does not exacerbate bone loss during subsequent exposure in the proximal tibia of adult rats. Bone, 2013, 56, 461-473.	2.9	17
49	Differential Efficacy of 2 Vibrating Orthodontic Devices to Alter the Cellular Response in Osteoblasts, Fibroblasts, and Osteoclasts. Dose-Response, 2018, 16, 155932581879211.	1.6	17
50	Rat Intervertebral Disc Health During Hindlimb Unloading: Brief Ambulation With or Without Vibration. Aviation, Space, and Environmental Medicine, 2010, 81, 1078-1084.	0.5	16
51	Comment on â€œHuman-like hand use in <i>Australopithecus africanus</i> â€. Science, 2015, 348, 1101-1101.	12.6	16
52	Ontogenetic and Genetic Influences on Boneâ€™s Responsiveness to Mechanical Signals. , 2017, , 233-253.		14
53	Moderate intensity resistive exercise improves metaphyseal cancellous bone recovery following an initial disuse period, but does not mitigate decrements during a subsequent disuse period in adult rats. Bone, 2014, 66, 296-305.	2.9	11
54	Bone shaft bending strength index is unaffected byÂexercise and unloading in mice. Journal of Anatomy, 2015, 226, 224-228.	1.5	10

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55	Modulation of unloading-induced bone loss in mice with altered ERK signaling. Mammalian Genome, 2016, 27, 47-61.	2.2	10
56	Low level irradiation in mice can lead to enhanced trabecular bone morphology. Journal of Bone and Mineral Metabolism, 2014, 32, 476-483.	2.7	9
57	Quantitative trait loci that modulate trabecular bone's risk of failure during unloading and reloading. Bone, 2014, 64, 25-32.	2.9	9
58	Trabecular and Cortical Bone of Growing C3H Mice Is Highly Responsive to the Removal of Weightbearing. PLoS ONE, 2016, 11, e0156222.	2.5	6
59	Increasing the number of unloading/reambulation cycles does not adversely impact body composition and lumbar bone mineral density but reduces tissue sensitivity. Acta Astronautica, 2013, 92, 89-96.	3.2	5
60	Dose-dependent effects of pharmaceutical treatments on bone matrix properties in ovariectomized rats. Bone Reports, 2021, 15, 101137.	0.4	5
61	Extending Rest between Unloading Cycles Does Not Enhance Boneâ€™s Long-Term Recovery. Medicine and Science in Sports and Exercise, 2015, 47, 2191-2200.	0.4	3
62	Mechanical vibrations reduce the Intervertebral Disc swelling and muscle atrophy from Bed Rest. , 2007, , .		2
63	Mechanisms of exercise effects on bone quantity and quality. , 2020, , 1759-1784.		2
64	Chapter 46. Exercise and the Prevention of Osteoporosis. , 0, , 227-231.		1
65	High-Resolution Imaging of Organs and Tissues by in vivo Micro-Computed Tomography. , 2008, , 313-330.		0
66	Nanoindentation: Techniques and Technical Considerations for Musculoskeletal Research. , 2008, , 789-811.		0