Peng Shang

List of Publications by Year
in descending order

121 papers	5,140 citations	101543 36 h-index	102487 66 g-index
123 all docs	123 docs citations	123 times ranked	6531 citing authors

#	Article	IF	Citations
1	Osteoclast-derived exosomal miR-214-3p inhibits osteoblastic bone formation. Nature Communications, 2016, 7, 10872.	12.8	424
2	Advances on Bioactive Polysaccharides from Medicinal Plants. Critical Reviews in Food Science and Nutrition, 2016, 56, S60-S84.	10.3	364
3	Ferroptosis, a novel pharmacological mechanism of anti-cancer drugs. Cancer Letters, 2020, 483, 127-136.	7.2	308
4	Aptamer-functionalized lipid nanoparticles targeting osteoblasts as a novel RNA interferenceâ€"based bone anabolic strategy. Nature Medicine, 2015, 21, 288-294.	30.7	253
5	Isolation, structure and bioactivities of the polysaccharides from Angelica sinensis (Oliv.) Diels: A review. Carbohydrate Polymers, 2012, 89, 713-722.	10.2	243
6	Structural features and biological activities of the polysaccharides from Astragalus membranaceus. International Journal of Biological Macromolecules, 2014, 64, 257-266.	7.5	233
7	A review of magnet systems for targeted drug delivery. Journal of Controlled Release, 2019, 302, 90-104.	9.9	185
8	Unraveling the Potential Role of Glutathione in Multiple Forms of Cell Death in Cancer Therapy. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-16.	4.0	177
9	Muscleâ€bone crosstalk and potential therapies for sarcoâ€osteoporosis. Journal of Cellular Biochemistry, 2019, 120, 14262-14273.	2.6	93
10	The effects of static magnetic fields on bone. Progress in Biophysics and Molecular Biology, 2014, 114, 146-152.	2.9	85
11	Connexin 43 Channels Are Essential for Normal Bone Structure and Osteocyte Viability. Journal of Bone and Mineral Research, 2015, 30, 436-448.	2.8	85
12	A delivery system specifically approaching bone resorption surfaces to facilitate therapeutic modulation of microRNAs in osteoclasts. Biomaterials, 2015, 52, 148-160.	11.4	84
13	Iron and leukemia: new insights for future treatments. Journal of Experimental and Clinical Cancer Research, 2019, 38, 406.	8.6	82
14	MicroRNA Let-7 regulates molting and metamorphosis in the silkworm, Bombyx mori. Insect Biochemistry and Molecular Biology, 2014, 53, 13-21.	2.7	81
15	Effect of imidacloprid on hepatotoxicity and nephrotoxicity in male albino mice. Toxicology Reports, 2014, 1, 554-561.	3.3	77
16	Alterations in Cellular Iron Metabolism Provide More Therapeutic Opportunities for Cancer. International Journal of Molecular Sciences, 2018, 19, 1545.	4.1	73
17	Regulation of Osteoblast Differentiation and Iron Content in MC3T3-E1 Cells by Static Magnetic Field with Different Intensities. Biological Trace Element Research, 2018, 184, 214-225.	3.5	69
18	Anticancer mechanisms of metformin: A review of the current evidence. Life Sciences, 2020, 254, 117717.	4.3	69

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19	Increased core body temperature in astronauts during long-duration space missions. Scientific Reports, 2017, 7, 16180.	3.3	68
20	MicroRNA-14 regulates larval development time in Bombyx mori. Insect Biochemistry and Molecular Biology, 2018, 93, 57-65.	2.7	65
21	The Effect of Abnormal Iron Metabolism on Osteoporosis. Biological Trace Element Research, 2020, 195, 353-365.	3.5	60
22	<i>Î²</i>-Phenethyl Isothiocyanate Induces Cell Death in Human Osteosarcoma through Altering Iron Metabolism, Disturbing the Redox Balance, and Activating the MAPK Signaling Pathway. Oxidative Medicine and Cellular Longevity, 2020, 2020, 1-23.	4.0	54
23	Iron metabolism gene expression and prognostic features of hepatocellular carcinoma. Journal of Cellular Biochemistry, 2018, 119, 9178-9204.	2.6	48
24	Inhibitory effects of a gradient static magnetic field on normal angiogenesis. Bioelectromagnetics, 2009, 30, 446-453.	1.6	47
25	Biomechanical and biophysical environment of bone from the macroscopic to the pericellular and molecular level. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 50, 104-122.	3.1	47
26	Iron overload involved in the enhancement of unloading-induced bone loss by hypomagnetic field. Bone, 2018, 114, 235-245.	2.9	47
27	PEITC triggers multiple forms of cell death by GSH-iron-ROS regulation in K7M2 murine osteosarcoma cells. Acta Pharmacologica Sinica, 2020, 41, 1119-1132.	6.1	47
28	Fractal Dimension as a Measure of Altered Actin Cytoskeleton in MC3T3-E1 Cells Under Simulated Microgravity Using 3-D/2-D Clinostats. IEEE Transactions on Biomedical Engineering, 2012, 59, 1374-1380.	4.2	46
29	Alterations of Mineral Elements in Osteoblast During Differentiation Under Hypo, Moderate and High Static Magnetic Fields. Biological Trace Element Research, 2014, 162, 153-157.	3.5	45
30	Effects of total flavonoids from Drynariae Rhizoma prevent bone loss in vivo and in vitro. Bone Reports, 2016, 5, 262-273.	0.4	42
31	Depressed mitochondrial biogenesis and dynamic remodeling in mouse tibialis anterior and gastrocnemius induced by 4â€week hindlimb unloading. IUBMB Life, 2012, 64, 901-910.	3.4	41
32	A Hypomagnetic Field Aggravates Bone Loss Induced by Hindlimb Unloading in Rat Femurs. PLoS ONE, 2014, 9, e105604.	2.5	41
33	Circadian rhythms in bed rest: Monitoring core body temperature via heat-flux approach is superior to skin surface temperature. Chronobiology International, 2017, 34, 666-676.	2.0	40
34	Isoforms, structures, and functions of versatile spectraplakin MACF1. BMB Reports, 2016, 49, 37-44.	2.4	40
35	Role of Wnt signaling in fracture healing. BMB Reports, 2014, 47, 666-672.	2.4	39
36	Development of a Ground-Based Simulated Experimental Platform for Gravitational Biology. IEEE Transactions on Applied Superconductivity, 2009, 19, 42-46.	1.7	38

#	ARTICLE	IF	CITATIONS
37	Metformin Suppresses Self-Renewal Ability and Tumorigenicity of Osteosarcoma Stem Cells via Reactive Oxygen Species-Mediated Apoptosis and Autophagy. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-18.	4.0	37
38	Directly targeting glutathione peroxidase 4 may be more effective than disrupting glutathione on ferroptosis-based cancer therapy. Biochimica Et Biophysica Acta - General Subjects, 2020, 1864, 129539.	2.4	36
39	Total Flavonoids of Drynariae Rhizoma Prevent Bone Loss Induced by Hindlimb Unloading in Rats. Molecules, 2017, 22, 1033.	3.8	35
40	Knockdown of microtubule actin crosslinking factor 1 inhibits cell proliferation in MC3T3-E1 osteoblastic cells. BMB Reports, 2015, 48, 583-588.	2.4	35
41	Therapeutic ionizing radiation induced bone loss: a review of in vivo and in vitro findings. Connective Tissue Research, 2018, 59, 509-522.	2.3	34
42	A review of bioeffects of static magnetic field on rodent models. Progress in Biophysics and Molecular Biology, 2014, 114, 14-24.	2.9	33
43	Magnetic fields as a potential therapy for diabetic wounds based on animal experiments and clinical trials. Cell Proliferation, 2021, 54, e12982.	5.3	32
44	Iron and magnetic: new research direction of the ferroptosis-based cancer therapy. American Journal of Cancer Research, 2018, 8, 1933-1946.	1.4	32
45	Gravitational environment produced by a superconducting magnet affects osteoblast morphology and functions. Acta Astronautica, 2008, 63, 929-946.	3.2	31
46	Large gradient high magnetic field affects FLG29.1 cells differentiation to form osteoclast-like cells. International Journal of Radiation Biology, 2012, 88, 806-813.	1.8	31
47	Lowering iron level protects against bone loss in focally irradiated and contralateral femurs through distinct mechanisms. Bone, 2019, 120, 50-60.	2.9	31
48	Large Gradient High Magnetic Fields Affect Osteoblast Ultrastructure and Function by Disrupting Collagen I or Fibronectin/Î±Î²1 Integrin. PLoS ONE, 2013, 8, e51036.	2.5	31
49	Safety of exposure to high static magnetic fields (2ÂTâ€“12ÂT): a study on mice. European Radiology, 2019, 29, 6029-6037.	4.5	30
50	Effects of static magnetic field on cell biomechanical property and membrane ultrastructure. Bioelectromagnetics, 2014, 35, 251-261.	1.6	29
51	Differences in responses to X-ray exposure between osteoclast and osteoblast cells. Journal of Radiation Research, 2017, 58, 791-802.	1.6	29
52	Effects of Iron Overload and Oxidative Damage on the Musculoskeletal System in the Space Environment: Data from Spaceflights and Ground-Based Simulation Models. International Journal of Molecular Sciences, 2018, 19, 2608.	4.1	27
53	Blocking glucocorticoid signaling in osteoblasts and osteocytes prevents mechanical unloading-induced cortical bone loss. Bone, 2020, 130, 115108.	2.9	27
54	Diamagnetic Levitation Causes Changes in the Morphology, Cytoskeleton, and Focal Adhesion Proteins Expression in Osteocytes. IEEE Transactions on Biomedical Engineering, 2012, 59, 68-77.	4.2	26

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55	On the relationship between tibia torsional deformation and regional muscle contractions in habitual human exercises in vivo. Journal of Biomechanics, 2015, 48, 456-464.	2.1	26
56	The role of iron metabolism in cancer therapy focusing on tumorâ€associated macrophages. Journal of Cellular Physiology, 2019, 234, 8028-8039.	4.1	26
57	Regulation of osteoclast differentiation by static magnetic fields. Electromagnetic Biology and Medicine, 2016, 36, 1-12.	1.4	25
58	Iron overload induces apoptosis of osteoblast cells via eliciting ER stress-mediated mitochondrial dysfunction and p-eIF2Î±/ATF4/CHOP pathway in vitro. Cellular Signalling, 2021, 84, 110024.	3.6	25
59	Iron Overload-Induced Osteocyte Apoptosis Stimulates Osteoclast Differentiation Through Increasing Osteocytic RANKL Production In Vitro. Calcified Tissue International, 2020, 107, 499-509.	3.1	24
60	Iron Promotes Dihydroartemisinin Cytotoxicity via ROS Production and Blockade of Autophagic Flux via Lysosomal Damage in Osteosarcoma. Frontiers in Pharmacology, 2020, 11, 444.	3.5	22
61	Biological Effects of Hypomagnetic Field: Groundâ€Based Data for Space Exploration. Bioelectromagnetics, 2021, 42, 516-531.	1.6	22
62	Effects of static magnetic fields on bone microstructure and mechanical properties in mice. Electromagnetic Biology and Medicine, 2018, 37, 76-83.	1.4	21
63	Impact of flow shear stress on morphology of osteoblast-like IDG-SW3 cells. Journal of Bone and Mineral Metabolism, 2018, 36, 529-536.	2.7	21
64	SIRT1: a potential tumour biomarker and therapeutic target. Journal of Drug Targeting, 2019, 27, 1046-1052.	4.4	21
65	HAMP Downregulation Contributes to Aggressive Hepatocellular Carcinoma via Mechanism Mediated by Cyclin4-Dependent Kinase-1/STAT3 Pathway. Diagnostics, 2019, 9, 48.	2.6	21
66	Iron-dependent cell death as executioner of cancer stem cells. Journal of Experimental and Clinical Cancer Research, 2018, 37, 79.	8.6	20
67	16 T high static magnetic field inhibits receptor activator of nuclear factor kappaâ€Î² ligandâ€induced osteoclast differentiation by regulating iron metabolism in Raw264.7 cells. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 2181-2190.	2.7	19
68	Disorder of Iron Metabolism Inhibits the Recovery of Unloadingâ€Induced Bone Loss in Hypomagnetic Field. Journal of Bone and Mineral Research, 2020, 35, 1163-1173.	2.8	17
69	Human 3-alpha hydroxysteroid dehydrogenase type 3 (3Î±-HSD3): The V54L mutation restricting the steroid alternative binding and enhancing the 20Î±-HSD activity. Journal of Steroid Biochemistry and Molecular Biology, 2014, 141, 135-143.	2.5	16
70	Biological responses of osteocytic connexin 43 hemichannels to simulated microgravity. Journal of Orthopaedic Research, 2017, 35, 1195-1202.	2.3	16
71	Static magnetic field of 0.2â€“0.4 T promotes the recovery of hindlimb unloading-induced bone loss in mice. International Journal of Radiation Biology, 2021, 97, 746-754.	1.8	16
72	Human 3Î±-hydroxysteroid dehydrogenase typeÂ3: structural clues of 5Î±-DHT reverse binding and enzyme down-regulation decreasing MCF7 cell growth. Biochemical Journal, 2016, 473, 1037-1046.	3.7	15

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73	Connexin 43 Channels in Osteocytes Regulate Bone Responses to Mechanical Unloading. Frontiers in Physiology, 2020, 11, 299.	2.8	15
74	Inhibitory Effects of Moderate Static Magnetic Field on Leukemia. IEEE Transactions on Magnetics, 2009, 45, 2136-2139.	2.1	14
75	HO-1: A new potential therapeutic target to combat osteoporosis. European Journal of Pharmacology, 2021, 906, 174219.	3.5	14
76	Inhibition of human natural killer cell functional activity by human aspartyl Î²-hydroxylase. International Immunopharmacology, 2014, 23, 452-459.	3.8	13
77	Deformation regimes of collagen fibrils in cortical bone revealed by in situ morphology and elastic modulus observations under mechanical loading. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 115-121.	3.1	13
78	Iron Chelator Induces Apoptosis in Osteosarcoma Cells by Disrupting Intracellular Iron Homeostasis and Activating the MAPK Pathway. International Journal of Molecular Sciences, 2021, 22, 7168.	4.1	13
79	Polycystin 2 is involved in the nitric oxide production in responding to oscillating fluid shear in MLO-Y4 cells. Journal of Biomechanics, 2014, 47, 387-391.	2.1	12
80	Heat shock protein 90 inhibitors induce functional inhibition of human natural killer cells in a dose-dependent manner. Immunopharmacology and Immunotoxicology, 2016, 38, 77-86.	2.4	11
81	Nitric oxide modulates the responses of osteoclast formation to static magnetic fields. Electromagnetic Biology and Medicine, 2018, 37, 23-34.	1.4	11
82	Osteocytic connexin 43 channels affect fracture healing. Journal of Cellular Physiology, 2019, 234, 19824-19832.	4.1	11
83	System Xcâ^’ inhibition blocks bone marrow-multiple myeloma exosomal crosstalk, thereby countering bortezomib resistance. Cancer Letters, 2022, 535, 215649.	7.2	11
84	Mechano-biological Coupling of Cellular Responses to Microgravity. Microgravity Science and Technology, 2015, 27, 505-514.	1.4	10
85	Neuropeptide FF attenuates RANKL-induced differentiation of macrophage-like cells into osteoclast-like cells. Archives of Oral Biology, 2015, 60, 282-292.	1.8	10
86	CRISPR disruption of TCTP gene impaired normal development in the silkworm <i>Bombyx mori</i>. Insect Science, 2019, 26, 973-982.	3.0	10
87	Effects of High Magneto-Gravitational Environment on Silkworm Embryogenesis. Microgravity Science and Technology, 2010, 22, 163-170.	1.4	9
88	Two-dimensional clinorotation influences cellular morphology, cytoskeleton and secretion of MLO-Y4 osteocyte-like cells. Biologia (Poland), 2012, 67, 255-262.	1.5	9
89	Responds of Bone Cells to Microgravity: Ground-Based Research. Microgravity Science and Technology, 2015, 27, 455-464.	1.4	9
90	Labile iron affects pharmacological ascorbate-induced toxicity in osteosarcoma cell lines. Free Radical Research, 2020, 54, 385-396.	3.3	9

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91	Static Magnetic Field (0.2â€“0.4â€‰T) Stimulates the Selfâ€Renewal Ability of Osteosarcoma Stem Cells Through Autophagic Degradation of Ferritin. Bioelectromagnetics, 2021, 42, 371-383.	1.6	9
92	Ergonomic Consideration in Pillow Height Determinants and Evaluation. Healthcare (Switzerland), 2021, 9, 1333.	2.0	9
93	Iron plays a role in sulfasalazine-induced ferroptosis with autophagic flux blockage in K7M2 osteosarcoma cells. Metallomics, 2022, 14, .	2.4	9
94	GeneChip Expression Profiling Reveals the Alterations of Energy Metabolism Related Genes in Osteocytes under Large Gradient High Magnetic Fields. PLoS ONE, 2015, 10, e0116359.	2.5	8
95	A new method to realize high-throughput protein crystallization in a superconducting magnet. CrystEngComm, 2015, 17, 1237-1241.	2.6	8
96	Measurement of contact angles in a simulated microgravity environment generated by a large gradient magnetic field. Review of Scientific Instruments, 2016, 87, 095107.	1.3	8
97	Glucocorticoid: A potential role in microgravity-induced bone loss. Acta Astronautica, 2017, 140, 206-212.	3.2	8
98	Osteocytic Connexin43 Channels Regulate Boneâ€“Muscle Crosstalk. Cells, 2021, 10, 237.	4.1	8
99	Static Magnetic Field (2â€“4â€‰T) Improves Bone Microstructure and Mechanical Properties by Coordinating Osteoblast/Osteoclast Differentiation in Mice. Bioelectromagnetics, 2021, 42, 200-211.	1.6	8
100	Effect of High Static Magnetic Fields on Biological Activities and Iron Metabolism in MLO-Y4 Osteocyte-like Cells. Cells, 2021, 10, 3519.	4.1	8
101	Evaluation of osteoclast-derived exosomal miRNA under simulated microgravity conditions using next-generation sequencing. Acta Astronautica, 2019, 161, 75-86.	3.2	7
102	A Novel Approach to Accumulate Superparamagnetic Particles in Aqueous Environment Using Time-Varying Magnetic Field. IEEE Transactions on Biomedical Engineering, 2020, 67, 1558-1564.	4.2	7
103	A first attempt investigation on crystallization screening and crystal quality of lysozyme under different simulated gravities in a large-gradient magnetic field. CrystEngComm, 2019, 21, 4001-4010.	2.6	6
104	Moderate Static Magnetic Fields Prevent Bone Architectural Deterioration and Strength Reduction in Ovariectomized Mice. IEEE Transactions on Magnetics, 2021, 57, 1-9.	2.1	5
105	Effect of static magnetic field on bone and its molecular mechanism. Chinese Science Bulletin, 2020, 65, 1238-1250.	0.7	5
106	12ÂT high static magnetic field suppresses osteosarcoma cells proliferation by regulating intracellular ROS and iron status. Experimental Cell Research, 2022, 417, 113223.	2.6	5
107	IMPACT OF OSTEOCLAST PRECURSORS SUBJECTED TO RANDOM POSITIONING MACHINE ON OSTEOBLASTS. Journal of Mechanics in Medicine and Biology, 2012, 12, 1250074.	0.7	4
108	Response of Osteoblasts to the Stimulus of Fluid Flow. Critical Reviews in Eukaryotic Gene Expression, 2015, 25, 153-162.	0.9	4

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109	The Distinctive Sensitivity to Microgravity of Immune Cell Subpopulations. Microgravity Science and Technology, 2015, 27, 427-436.	1.4	4
110	Effects of large gradient high magnetic field (LGâ€HMF) on the longâ€term culture of aquatic organisms: Planarians example. Bioelectromagnetics, 2018, 39, 428-440.	1.6	4
111	Dynamic and quantitative phase-contrast imaging of living cells under simulated zero gravity by digital holographic microscopy and superconducting magnet. Laser Physics, 2012, 22, 1435-1438.	1.2	3
112	An Improved Quantitative Analysis Method for Plant Cortical Microtubules. Scientific World Journal, The, 2014, 2014, 1-8.	2.1	3
113	A novel rotating experimental platform in a superconducting magnet. Review of Scientific Instruments, 2016, 87, 084302.	1.3	3
114	Blockage of hemichannels alters gene expression in osteocytes in a high magneto-gravitational environment. Frontiers in Bioscience - Landmark, 2017, 22, 783-794.	3.0	3
115	Transcriptome Analysis Reveals the Negative Effect of 16â€‰T High Static Magnetic Field on Osteoclastogenesis of RAW264.7 Cells. BioMed Research International, 2020, 2020, 1-12.	1.9	3
116	Evaluating the biological safety on mice at 16 T static magnetic field with 700 MHz radio-frequency electromagnetic field. Ecotoxicology and Environmental Safety, 2022, 230, 113125.	6.0	3
117	Simulated microgravity promotes oxidative stress-induced apoptosis in ARPE-19Âcells associated with Nrf2 signaling pathway. Acta Astronautica, 2022, 198, 161-169.	3.2	2
118	TECHNOLOGIES FOR STRAIN ASSESSMENT FROM WHOLE BONE TO MINERALIZED OSTEOID LEVEL: A CRITICAL REVIEW. Journal of Mechanics in Medicine and Biology, 2016, 16, 1630002.	0.7	1
119	What the discovery of irisin receptor means to bone. Archives of Physiology and Biochemistry, 2022, 128, 1137-1139.	2.1	1
120	Effect of High Static Magnetic Field (2 Tâ€"12 T) Exposure on the Mineral Element Content in Mice. Biological Trace Element Research, 2021, 199, 3416-3422.	3.5	1
121	Stealth siRNA against CD147 inhibits hepatocellular carcinoma cell metastatic properties. Biologia (Poland), 2008, 63, 756-763.	1.5	0