Piezo proteins are pore-forming subunits of mechanica

Nature

483, 176-181

DOI: 10.1038/nature10812

Citation Report

#	Article	IF	CITATIONS
1	The Cellular Feeling of Pressure. Science, 2012, 338, 59-59.	6.0	1
2	Gating the mechanical channel Piezo1. Channels, 2012, 6, 282-289.	1.5	168
3	Piezo1. Channels, 2012, 6, 214-219.	1.5	103
5	The Perception and Endogenous Modulation of Pain. Scientifica, 2012, 2012, 1-25.	0.6	53
6	Gorilla gorilla gorilla. Nature, 2012, 483, 164-165.	13.7	6
7	<i>Drosophila</i> as a tool for studying the conserved genetics of pain. Clinical Genetics, 2012, 82, 359-366.	1.0	42
8	TMHS Is an Integral Component of the Mechanotransduction Machinery of Cochlear Hair Cells. Cell, 2012, 151, 1283-1295.	13.5	230
9	Inflammatory Signals Enhance Piezo2-Mediated Mechanosensitive Currents. Cell Reports, 2012, 2, 511-517.	2.9	157
10	Mechanosensitive ion channels. Channels, 2012, 6, 211-213.	1.5	44
11	How We Feel: Ion Channel Partnerships that Detect Mechanical Inputs and Give Rise to Touch and Pain Perception. Neuron, 2012, 74, 609-619.	3.8	87
12	Sensing pressure with ion channels. Trends in Neurosciences, 2012, 35, 477-486.	4.2	134
13	Mutations in the mechanotransduction protein PIEZO1 are associated with hereditary xerocytosis. Blood, 2012, 120, 1908-1915.	0.6	357
14	Touch sense. Channels, 2012, 6, 234-245.	1.5	124
15	The role of Drosophila Piezo in mechanical nociception. Nature, 2012, 483, 209-212.	13.7	412
16	Dendritic Filopodia, Ripped Pocket, NOMPC, and NMDARs Contribute to the Sense of Touch in Drosophila Larvae. Current Biology, 2012, 22, 2124-2134.	1.8	106
17	Mechano-regulation of the beating heart at the cellular level \hat{a} \in Mechanosensitive channels in normal and diseased heart. Progress in Biophysics and Molecular Biology, 2012, 110, 226-238.	1.4	51
18	The sensation of stretch. Nature, 2012, 483, 163-164.	13.7	15
19	Sickle Cell Mice Exhibit Mechanical Allodynia and Enhanced Responsiveness in Light Touch Cutaneous Mechanoreceptors. Molecular Pain, 2012, 8, 1744-8069-8-62.	1.0	44

#	Article	IF	CITATIONS
20	Learning on Jupiter, learning on the Moon: the dark side of the G-force. Effects of gravity changes on neurovascular unit and modulation of learning and memory. Frontiers in Behavioral Neuroscience, 2012, 6, 64.	1.0	16
22	Molecular force transduction by ion channels – diversity and unifying principles. Journal of Cell Science, 2012, 125, 3075-83.	1.2	168
23	Differential effects of lipids and lyso-lipids on the mechanosensitivity of the mechanosensitive channels MscL and MscS. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8770-8775.	3.3	170
24	Conserved systems and functional genomic assessment of nociception. FEBS Journal, 2013, 280, 5298-5306.	2.2	9
25	Mechanisms and mechanics of cell competition in epithelia. Nature Reviews Molecular Cell Biology, 2013, 14, 581-591.	16.1	117
26	Slower Piezo1 Inactivation in Dehydrated Hereditary Stomatocytosis (Xerocytosis). Biophysical Journal, 2013, 105, 833-834.	0.2	21
27	Mechano-Gated Ion Channels in Sensory Systems. Cell, 2013, 155, 278-284.	13.5	145
28	Piezo1â€dependent stretchâ€activated channels are inhibited by Polycystinâ€2 in renal tubular epithelial cells. EMBO Reports, 2013, 14, 1143-1148.	2.0	127
29	A force of nature: molecular mechanisms of mechanoperception in plants. Journal of Experimental Botany, 2013, 64, 4663-4680.	2.4	193
30	Conduits of Life's Spark: A Perspective on Ion Channel Research since the Birth of Neuron. Neuron, 2013, 80, 658-674.	3.8	44
31	Direct recording and molecular identification of the calcium channel of primary cilia. Nature, 2013, 504, 315-318.	13.7	268
32	The interplay between cell signalling and mechanics in developmental processes. Nature Reviews Genetics, 2013, 14, 733-744.	7.7	178
33	Dehydrated hereditary stomatocytosis linked to gain-of-function mutations in mechanically activated PIEZO1 ion channels. Nature Communications, 2013, 4, 1884.	5.8	282
34	Human PIEZO1: Removing Inactivation. Biophysical Journal, 2013, 105, 880-886.	0.2	64
35	Applications of high-throughput DNA sequencing to benign hematology. Blood, 2013, 122, 3575-3582.	0.6	25
36	Drosophila NOMPC is a mechanotransduction channel subunit for gentle-touch sensation. Nature, 2013, 493, 221-225.	13.7	304
37	Drosophila TRP channels and animal behavior. Life Sciences, 2013, 92, 394-403.	2.0	145
38	Kv1.1 Channels Act as Mechanical Brake in the Senses of Touch and Pain. Neuron, 2013, 77, 899-914.	3.8	120

#	Article	lF	Citations
39	Shear stress-induced Ca2+ mobilization in MDCK cells is ATP dependent, no matter the primary cilium. Cell Calcium, 2013, 53, 327-337.	1.1	21
40	Plant mechanosensing and Ca2+ transport. Trends in Plant Science, 2013, 18, 227-233.	4.3	143
41	Transient Receptor Potential Channels and Mechanosensation. Annual Review of Neuroscience, 2013, 36, 519-546.	5.0	62
42	Piezo-Electrically Driven Mechanical Stimulation of Sensory Neurons. Methods in Molecular Biology, 2013, 998, 159-170.	0.4	11
43	Bringing balance by force: live cell extrusion controls epithelial cell numbers. Trends in Cell Biology, 2013, 23, 185-192.	3.6	95
44	Constructing droplet interface bilayers from the contact of aqueous droplets in oil. Nature Protocols, 2013, 8, 1048-1057.	5.5	115
45	Fruit flies as a powerful model to drive or validate pain genomics efforts. Pharmacogenomics, 2013, 14, 1879-1887.	0.6	9
46	Runx1 Controls Terminal Morphology and Mechanosensitivity of VGLUT3-expressing C-Mechanoreceptors. Journal of Neuroscience, 2013, 33, 870-882.	1.7	129
47	Disorders of red cell volume regulation. Current Opinion in Hematology, 2013, 20, 201-207.	1.2	64
48	The role of transmembrane channel–like proteins in the operation of hair cell mechanotransducer channels. Journal of General Physiology, 2013, 142, 493-505.	0.9	83
49	α ₂ Î-1 Gene Deletion Affects Somatosensory Neuron Function and Delays Mechanical Hypersensitivity in Response to Peripheral Nerve Damage. Journal of Neuroscience, 2013, 33, 16412-16426.	1.7	105
50	Gain-of-function mutations in the mechanically activated ion channel PIEZO2 cause a subtype of Distal Arthrogryposis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4667-4672.	3.3	193
51	Inferring subunit stoichiometry from single molecule photobleaching. Journal of General Physiology, 2013, 141, 737-746.	0.9	41
52	The Purified Mechanosensitive Channel TREK-1 Is Directly Sensitive to Membrane Tension. Journal of Biological Chemistry, 2013, 288, 27307-27314.	1.6	72
53	Development of a nanorobotic station for electrophysiology under nanomechanical stimulation. , 2013, , .		0
54	Neurosensory mechanotransduction through acidâ€sensing ion channels. Journal of Cellular and Molecular Medicine, 2013, 17, 337-349.	1.6	90
55	NOMPC is likely a key component of Drosophilamechanotransduction channels. European Journal of Neuroscience, 2013, 38, 2057-2064.	1.2	29
56	Xerocytosis is caused by mutations that alter the kinetics of the mechanosensitive channel PIEZO1. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1162-8.	3.3	261

#	Article	IF	Citations
58	Into the membrane., 0,, 183-219.		0
59	New Components of Drosophila Leg Development Identified through Genome Wide Association Studies. PLoS ONE, 2013, 8, e60261.	1.1	15
60	Modulation of TRESK Background K+ Channel by Membrane Stretch. PLoS ONE, 2013, 8, e64471.	1.1	29
61	Cardiac Stretch–Activated Channels and Mechano-Electric Coupling. , 2014, , 139-149.		O
62	Optogenetic Patterning of Whisker-Barrel Cortical System in Transgenic Rat Expressing Channelrhodopsin-2. PLoS ONE, 2014, 9, e93706.	1.1	17
63	Nerve Growth Factor Mediates a Switch in Intracellular Signaling for PGE2-Induced Sensitization of Sensory Neurons from Protein Kinase A to Epac. PLoS ONE, 2014, 9, e104529.	1.1	20
65	Nociception., 0,, 66-76.		1
66	Selective inhibition of meningeal nociceptors by botulinum neurotoxin type A: Therapeutic implications for migraine and other pains. Cephalalgia, 2014, 34, 853-869.	1.8	187
67	Synergy between Piezo1 and Piezo2 channels confers high-strain mechanosensitivity to articular cartilage. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5114-22.	3.3	321
68	Flow shear stress enhances intracellular Ca ²⁺ signaling in pulmonary artery smooth muscle cells from patients with pulmonary arterial hypertension. American Journal of Physiology - Cell Physiology, 2014, 307, C373-C383.	2.1	54
69	Mechanosensitive channels: feeling tension in a world under pressure. Frontiers in Plant Science, 2014, 5, 558.	1.7	89
70	Mechanosensitive Neurons on the Internal Reproductive Tract Contribute to Egg-Laying-Induced Acetic Acid Attraction in Drosophila. Cell Reports, 2014, 9, 522-530.	2.9	66
71	The Role of PPK26 in Drosophila Larval Mechanical Nociception. Cell Reports, 2014, 9, 1183-1190.	2.9	85
72	Examination of the role of transient receptor potential vanilloid type 4 in endothelial responses to shear forces. Biomicrofluidics, 2014, 8, 044117.	1.2	36
73	Piezo2 expression in corneal afferent neurons. Journal of Comparative Neurology, 2014, 522, 2967-2979.	0.9	63
74	Hereditary xerocytosis and familial haemolysis due to mutation in the PIEZO1 gene: a simple diagnostic approach. International Journal of Laboratory Hematology, 2014, 36, e62-5.	0.7	15
75	Piezo Proteins: Regulators of Mechanosensation and Other Cellular Processes. Journal of Biological Chemistry, 2014, 289, 31673-31681.	1.6	181
76	Temperature Sensitivity of Two-Pore (K2P) Potassium Channels. Current Topics in Membranes, 2014, 74, 113-133.	0.5	46

#	Article	IF	Citations
77	One-channel Cell-attached Patch-clamp Recording. Journal of Visualized Experiments, 2014, , .	0.2	13
78	Molecular candidates for cardiac stretch-activated ion channels. Global Cardiology Science & Practice, 2014, 2014, 19.	0.3	58
79	TMC function in hair cell transduction. Hearing Research, 2014, 311, 17-24.	0.9	35
80	Bacterial Mechanosensitive Channels: Models for Studying Mechanosensory Transduction. Antioxidants and Redox Signaling, 2014, 20, 952-969.	2.5	41
81	The ion channels to cytoskeleton connection as potential mechanism of mechanosensitivity. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 682-691.	1.4	104
82	Mechanochemitry: A Molecular Biomechanics View of Mechanosensing. Annals of Biomedical Engineering, 2014, 42, 388-404.	1.3	28
83	Physiological and Pathological Functions of Mechanosensitive Ion Channels. Molecular Neurobiology, 2014, 50, 339-347.	1.9	50
85	Intramembrane Cavitation as a Predictive Bio-Piezoelectric Mechanism for Ultrasonic Brain Stimulation. Physical Review X, 2014, 4, .	2.8	103
86	Nerve Growth Factor and Nociception: From Experimental Embryology to New Analgesic Therapy. Handbook of Experimental Pharmacology, 2014, 220, 251-282.	0.9	63
88	Piezo1 Is as a Novel Trefoil Factor Family 1 Binding Protein that Promotes Gastric Cancer Cell Mobility In Vitro. Digestive Diseases and Sciences, 2014, 59, 1428-1435.	1.1	80
89	Application of fluorescence resonance energy transfer in protein studies. Journal of Molecular Structure, 2014, 1077, 87-100.	1.8	84
90	The Biology of Reaction Wood. Springer Series in Wood Science, 2014, , .	0.8	38
91	Anatomy and Physiology of the Circulatory and Ventilatory Systems. Biomathematical and Biomechanical Modeling of the Circulatory and Ventilatory Systems, 2014, , .	0.1	9
92	Deciphering the Subunit Composition of Multimeric Proteins by Counting Photobleaching Steps. ChemPhysChem, 2014, 15, 600-605.	1.0	51
93	Stretch-activated ion channel Piezo1 directs lineage choice in human neural stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16148-16153.	3.3	446
94	Small Quantum Dots Conjugated to Nanobodies as Immunofluorescence Probes for Nanometric Microscopy. Bioconjugate Chemistry, 2014, 25, 2205-2211.	1.8	29
95	Cardiac mechano-electric coupling research: Fifty years of progress and scientific innovation. Progress in Biophysics and Molecular Biology, 2014, 115, 71-75.	1.4	58
96	Piezo1 integration of vascular architecture with physiological force. Nature, 2014, 515, 279-282.	13.7	813

#	Article	IF	CITATIONS
97	Shear Stress–Initiated Signaling and Its Regulation of Endothelial Function. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, 2191-2198.	1.1	389
98	Integrating the active process of hair cells with cochlear function. Nature Reviews Neuroscience, 2014, 15, 600-614.	4.9	269
99	Volumetric Deformation of Live Cells Induced by Pressure-Activated Cross-Membrane Ion Transport. Physical Review Letters, 2014, 113, 118101.	2.9	47
100	Development of Mechanostimulated Patch-Clamp System for Cellular Physiological Study. IEEE/ASME Transactions on Mechatronics, 2014, 19, 1138-1147.	3.7	15
101	OSCA1 mediates osmotic-stress-evoked Ca2+ increases vital for osmosensing in Arabidopsis. Nature, 2014, 514, 367-371.	13.7	590
102	The Physiology of Mechanoelectrical Transduction Channels in Hearing. Physiological Reviews, 2014, 94, 951-986.	13.1	250
103	Piezoelectricity and ferroelectricity in biomaterials: Molecular modeling and piezoresponse force microscopy measurements. Journal of Applied Physics, 2014, 116, .	1.1	59
104	Effect of ageing on tactile transduction processes. Ageing Research Reviews, 2014, 13, 90-99.	5.0	60
105	Functional Role for Piezo1 in Stretch-evoked Ca2+ Influx and ATP Release in Urothelial Cell Cultures. Journal of Biological Chemistry, 2014, 289, 16565-16575.	1.6	231
106	Piezo1, a mechanically activated ion channel, is required for vascular development in mice. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10347-10352.	3.3	651
107	Tuning Piezo ion channels to detect molecular-scale movements relevant for fine touch. Nature Communications, 2014, 5, 3520.	5.8	229
108	Potential role of transient receptor potential (TRP) channels in bladder cancer cells. Journal of Physiological Sciences, 2014, 64, 305-314.	0.9	37
109	Age-Dependent Sensitization of Cutaneous Nociceptors during Developmental Inflammation. Molecular Pain, 2014, 10, 1744-8069-10-34.	1.0	26
110	Sensory Biology: It Takes Piezo2 toÂTango. Current Biology, 2014, 24, R566-R569.	1.8	9
111	Calcium-Permeable Ion Channels in Pain Signaling. Physiological Reviews, 2014, 94, 81-140.	13.1	249
112	Connecting alveolate cell biology with trophic ecology in the marine plankton using the ciliate <i>Favella</i> as a model. FEMS Microbiology Ecology, 2014, 90, 18-38.	1.3	13
113	The Structure of a Conserved Piezo Channel Domain Reveals a Topologically Distinct \hat{l}^2 Sandwich Fold. Structure, 2014, 22, 1520-1527.	1.6	41
114	Piezo2 is required for Merkel-cell mechanotransduction. Nature, 2014, 509, 622-626.	13.7	590

#	ARTICLE	IF	CITATIONS
115	Polycystins and partners: proposed role in mechanosensitivity. Journal of Physiology, 2014, 592, 2453-2471.	1.3	54
116	Piezo2 channel conductance and localization domains in Merkel cells of rat whisker hair follicles. Neuroscience Letters, 2014, 583, 210-215.	1.0	42
118	Biophysical Regulation of Chromatin Architecture Instills a Mechanical Memory in Mesenchymal Stem Cells. Scientific Reports, 2015, 5, 16895.	1.6	148
119	Laser-induced thermoelastic effects can evoke tactile sensations. Scientific Reports, 2015, 5, 11016.	1.6	43
120	Contribution of Piezo2 to Endothelium-Dependent Pain. Molecular Pain, 2015, 11, s12990-015-0068.	1.0	31
121	Ionic Selectivity and Permeation Properties of Human PIEZO1 Channels. PLoS ONE, 2015, 10, e0125503.	1.1	125
122	Differential Contribution of TRPA1, TRPV4 and TRPM8 to Colonic Nociception in Mice. PLoS ONE, 2015, 10, e0128242.	1.1	52
123	Scanning MscL Channels with Targeted Post-Translational Modifications for Functional Alterations. PLoS ONE, 2015, 10, e0137994.	1.1	24
124	Chemical activation of the mechanotransduction channel Piezo1. ELife, 2015, 4, .	2.8	461
125	Mechanical stimulation induces formin-dependent assembly of a perinuclear actin rim. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E2595-601.	3.3	105
126	Piezo1 links mechanical forces to red blood cell volume. ELife, 2015, 4, .	2.8	437
128	Feeling Force: Physical and Physiological Principles Enabling Sensory Mechanotransduction. Annual Review of Cell and Developmental Biology, 2015, 31, 347-371.	4.0	128
129	Ultrasound stimulates formation and release of vasoactive compounds in brain endothelial cells. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H583-H591.	1.5	12
130	Transduction and encoding sensory information by skin mechanoreceptors. Pflugers Archiv European Journal of Physiology, 2015, 467, 109-119.	1.3	44
131	Combining Single-Molecule Imaging and Single-Channel Electrophysiology. Journal of Molecular Biology, 2015, 427, 146-157.	2.0	24
132	Activation of TRPV1 channels inhibits mechanosensitive Piezo channel activity by depleting membrane phosphoinositides. Science Signaling, 2015, 8, ra15.	1.6	153
133	Endothelial Piezo1: Life depends on it. Channels, 2015, 9, 1-2.	1.5	15
134	Piezo1 forms mechanosensitive ion channels in the human MCF-7 breast cancer cell line. Scientific Reports, 2015, 5, 8364.	1.6	122

#	ARTICLE	IF	Citations
135	Mechanobiology of lymphatic contractions. Seminars in Cell and Developmental Biology, 2015, 38, 67-74.	2.3	33
136	Mechanical systems biology of <i>C. elegans</i> touch sensation. BioEssays, 2015, 37, 335-344.	1.2	34
137	Unconventional Mechanics of Lipid Membranes: A Potential Role for Mechanotransduction of Hair Cell Stereocilia. Biophysical Journal, 2015, 108, 610-621.	0.2	13
138	Functional role of mechanosensitive ion channel Piezo1 in human periodontal ligament cells. Angle Orthodontist, 2015, 85, 87-94.	1.1	65
140	Protonation of the Human PIEZO1 Ion Channel Stabilizes Inactivation. Journal of Biological Chemistry, 2015, 290, 5167-5173.	1.6	52
141	Targeted Identification of Sialoglycoproteins in Hypoxic Endothelial Cells and Validation in Zebrafish Reveal Roles for Proteins in Angiogenesis. Journal of Biological Chemistry, 2015, 290, 3405-3417.	1.6	30
142	An updated review of mechanotransduction in skin disorders: transcriptional regulators, ion channels, and microRNAs. Cellular and Molecular Life Sciences, 2015, 72, 2091-2106.	2.4	57
143	Sensory mechanotransduction at membrane-matrix interfaces. Pflugers Archiv European Journal of Physiology, 2015, 467, 121-132.	1.3	36
144	Mechanotransduction in epidermal Merkel cells. Pflugers Archiv European Journal of Physiology, 2015, 467, 101-108.	1.3	49
145	Spicing up the sensation of stretch: TRPV1 controls mechanosensitive Piezo channels. Science Signaling, 2015, 8, fs3.	1.6	7
146	Worms under Pressure: Bulk Mechanical Properties of C. elegans Are Independent of the Cuticle. Biophysical Journal, 2015, 108, 1887-1898.	0.2	47
147	Single mechanically-gated cation channel currents can trigger action potentials in neocortical and hippocampal pyramidal neurons. Brain Research, 2015, 1608, 1-13.	1.1	20
148	Mechanotransduction of trigeminal ganglion neurons innervating inner walls of rat anterior eye chambers. American Journal of Physiology - Cell Physiology, 2015, 309, C1-C10.	2.1	33
149	Mechanosensory molecules and circuits in C. elegans. Pflugers Archiv European Journal of Physiology, 2015, 467, 39-48.	1.3	59
150	Lipid–protein interactions: Lessons learned from stress. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 1744-1756.	1.4	43
151	Three-dimensional Imaging Reveals New Compartments and Structural Adaptations in Odontoblasts. Journal of Dental Research, 2015, 94, 945-954.	2.5	32
152	Contribution of Mechanosensitive Ion Channels to Somatosensation. Progress in Molecular Biology and Translational Science, 2015, 131, 53-71.	0.9	15
153	Mechanotransduction's Impact on Animal Development, Evolution, and Tumorigenesis. Annual Review of Cell and Developmental Biology, 2015, 31, 373-397.	4.0	58

#	Article	IF	CITATIONS
154	Architecture of the mammalian mechanosensitive Piezo1 channel. Nature, 2015, 527, 64-69.	13.7	363
155	Mechanically Activated Ion Channels. Neuron, 2015, 87, 1162-1179.	3.8	504
156	Functional similarities between heterogeneously and homogenously expressed MscL constructs. European Biophysics Journal, 2015, 44, 589-598.	1.2	1
157	Piezo1 ion channel pore properties are dictated by C-terminal region. Nature Communications, 2015, 6, 7223.	5.8	172
158	The Piezo Mechanosensitive Ion Channels: May the Force Be with You!. Reviews of Physiology, Biochemistry and Pharmacology, 2015, 169, 25-41.	0.9	39
159	Mammalian touch catches up. Current Opinion in Neurobiology, 2015, 34, 133-139.	2.0	36
160	Impaired PIEZO1 function in patients with a novel autosomal recessive congenital lymphatic dysplasia. Nature Communications, 2015, 6, 8329.	5.8	239
161	Membrane stiffening by STOML3 facilitates mechanosensation in sensory neurons. Nature Communications, 2015, 6, 8512.	5.8	127
162	Ankyrin Repeats Convey Force to Gate the NOMPC Mechanotransduction Channel. Cell, 2015, 162, 1391-1403.	13.5	191
163	Mechanosensitive activation of CFTR by increased cell volume and hydrostatic pressure but not shear stress. Biochimica Et Biophysica Acta - Biomembranes, 2015, 1848, 2942-2951.	1.4	18
164	Piezo1 regulates mechanotransductive release of ATP from human RBCs. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11783-11788.	3.3	156
165	Piezo1 in Smooth Muscle Cells Is Involved in Hypertension-Dependent Arterial Remodeling. Cell Reports, 2015, 13, 1161-1171.	2.9	250
166	ASICs and mammalian mechanoreceptor function. Neuropharmacology, 2015, 94, 80-86.	2.0	55
167	Reverse Genetic Screening Reveals Poor Correlation between Morpholino-Induced and Mutant Phenotypes in Zebrafish. Developmental Cell, 2015, 32, 97-108.	3.1	666
168	The how and why of identifying the hair cell mechano-electrical transduction channel. Pflugers Archiv European Journal of Physiology, 2015, 467, 73-84.	1.3	17
169	PIEZO2 is required for mechanotransduction in human stem cell–derived touch receptors. Nature Neuroscience, 2015, 18, 10-16.	7.1	102
170	Gastrointestinal motility and its enteric actors in mechanosensitivity: past and present. Pflugers Archiv European Journal of Physiology, 2015, 467, 191-200.	1.3	20
171	Piezo channels: from structure to function. Pflugers Archiv European Journal of Physiology, 2015, 467, 95-99.	1.3	152

#	Article	IF	Citations
172	MscL: channeling membrane tension. Pflugers Archiv European Journal of Physiology, 2015, 467, 15-25.	1.3	23
173	Bimatoprost Increases Mechanosensitivity of Trigeminal Ganglion Neurons Innervating the Inner Walls of Rat Anterior Chambers via Activation of TRPA1., 2016, 57, 567.		8
174	Hereditary stomatocytosis: advances in understanding the pathogenesis of dehydrated forms. Hematologie, 2016, 22, 319-324.	0.0	0
175	Influence of Global and Local Membrane Curvature on Mechanosensitive Ion Channels: A Finite Element Approach. Membranes, 2016, 6, 14.	1.4	58
176	Human PIEZO1 Ion Channel Functions as a Split Protein. PLoS ONE, 2016, 11, e0151289.	1.1	12
177	Nod Factor Effects on Root Hair-Specific Transcriptome of Medicago truncatula: Focus on Plasma Membrane Transport Systems and Reactive Oxygen Species Networks. Frontiers in Plant Science, 2016, 7, 794.	1.7	55
178	Endothelial cation channel PIEZO1 controls blood pressure by mediating flow-induced ATP release. Journal of Clinical Investigation, 2016, 126, 4527-4536.	3.9	401
179	Endothelial Mechanosignaling: Does One Sensor Fit All?. Antioxidants and Redox Signaling, 2016, 25, 373-388.	2.5	128
181	Direct Measurement of the Critical Pore Size in a Model Membrane. Physical Review Letters, 2016, 117, 257801.	2.9	12
182	Ultrasound modulates ion channel currents. Scientific Reports, 2016, 6, 24170.	1.6	241
183	Demystifying Mechanosensitive Piezo Ion Channels. Neuroscience Bulletin, 2016, 32, 307-309.	1.5	15
184	Complex Formed between Intramembrane Metalloprotease SpoIVFB and Its Substrate, Pro-ÏfK. Journal of Biological Chemistry, 2016, 291, 10347-10362.	1.6	6
185	Piezo1-dependent regulation of urinary osmolarity. Pflugers Archiv European Journal of Physiology, 2016, 468, 1197-1206.	1.3	74
186	The body's tailored suit: Skin as a mechanical interface. European Journal of Cell Biology, 2016, 95, 475-482.	1.6	7
187	Heterogeneity, Cell Biology and Tissue Mechanics of Pseudostratified Epithelia: Coordination of Cell Divisions and Growth in Tightly Packed Tissues. International Review of Cell and Molecular Biology, 2016, 325, 89-118.	1.6	45
188	Is TMC1 the Hair Cell Mechanotransducer Channel?. Biophysical Journal, 2016, 111, 3-9.	0.2	47
189	A single mechanism driving both inactivation and adaptation in rapidly adapting currents of DRG neurons?. Biological Cybernetics, 2016, 110, 393-401.	0.6	2
190	Role of TRPC1 channels in pressure-mediated activation of murine pancreatic stellate cells. European Biophysics Journal, 2016, 45, 657-670.	1.2	40

#	Article	IF	Citations
191	Hemodynamic Control of Endothelial Cell Fates in Development. Annual Review of Cell and Developmental Biology, 2016, 32, 633-648.	4.0	20
192	The potential role of Piezo2 in the mediation of visceral sensation. Neuroscience Letters, 2016, 630, 158-163.	1.0	24
193	The role of stretch-activated ion channels in acute respiratory distress syndrome: finally a new target?. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2016, 311, L639-L652.	1.3	26
194	Mechanosensing is critical for axon growth in the developing brain. Nature Neuroscience, 2016, 19, 1592-1598.	7.1	478
195	Modulatory effects on Drosophila larva hearts: room temperature, acute and chronic cold stress. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2016, 186, 829-841.	0.7	25
196	Advances in understanding the pathogenesis of the red cell volume disorders. British Journal of Haematology, 2016, 174, 674-685.	1.2	32
197	Piezo1 Channels Are Inherently Mechanosensitive. Cell Reports, 2016, 17, 1739-1746.	2.9	366
198	Heterologously-expressed and Liposome-reconstituted Human Transient Receptor Potential Melastatin 4 Channel (TRPM4) is a Functional Tetramer. Scientific Reports, 2016, 6, 19352.	1.6	27
199	Adhesion GPCRs as a Putative Class of Metabotropic Mechanosensors. Handbook of Experimental Pharmacology, 2016, 234, 221-247.	0.9	48
200	Adhesion G Protein-coupled Receptors. Handbook of Experimental Pharmacology, 2016, , .	0.9	7
201	Biallelic Loss of Proprioception-Related PIEZO2 Causes Muscular Atrophy with Perinatal Respiratory Distress, Arthrogryposis, and Scoliosis. American Journal of Human Genetics, 2016, 99, 1206-1216.	2.6	65
202	Are TMCs the Mechanotransduction Channels of Vertebrate Hair Cells?. Journal of Neuroscience, 2016, 36, 10921-10926.	1.7	43
203	Localized force application reveals mechanically sensitive domains of Piezo1. Nature Communications, 2016, 7, 12939.	5.8	93
204	Evidence for the involvement of ASIC3 in sensory mechanotransduction in proprioceptors. Nature Communications, 2016, 7, 11460.	5.8	98
205	New insights on hereditary erythrocyte membrane defects. Haematologica, 2016, 101, 1284-1294.	1.7	156
206	Removal of the mechanoprotective influence of the cytoskeleton reveals PIEZO1 is gated by bilayer tension. Nature Communications, 2016, 7, 10366.	5.8	391
207	Measurement of Vibration Detection Threshold and Tactile Spatial Acuity in Human Subjects. Journal of Visualized Experiments, 2016, , .	0.2	6
208	Vagal Afferent Innervation of the Airways in Health and Disease. Physiological Reviews, 2016, 96, 975-1024.	13.1	365

#	ARTICLE	IF	CITATIONS
209	Transmembrane channel-like (<i>tmc</i>) gene regulates <i>Drosophila</i> larval locomotion. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 7243-7248.	3.3	72
210	Piezo1haploinsufficiency does not alter mechanotransduction in mouse cochlear outer hair cells. Physiological Reports, 2016, 4, e12701.	0.7	5
211	Ferroelectric Polymers and Their Energyâ€Related Applications. Macromolecular Chemistry and Physics, 2016, 217, 1228-1244.	1.1	193
212	Biomechanical Origins of Muscle Stem Cell Signal Transduction. Journal of Molecular Biology, 2016, 428, 1441-1454.	2.0	22
213	Cardiac Mechano-Gated Ion Channels and Arrhythmias. Circulation Research, 2016, 118, 311-329.	2.0	173
214	The Sensorless Pore Module of Voltage-gated K+ Channel Family 7 Embodies the Target Site for the Anticonvulsant Retigabine. Journal of Biological Chemistry, 2016, 291, 2931-2937.	1.6	20
215	Plug-N-Play: Mechanotransduction Goes Modular. Neuron, 2016, 89, 1128-1130.	3.8	4
216	The force within: endocardial development, mechanotransduction and signalling during cardiac morphogenesis. Development (Cambridge), 2016, 143, 373-386.	1.2	72
217	Ion Permeation and Mechanotransduction Mechanisms of Mechanosensitive Piezo Channels. Neuron, 2016, 89, 1248-1263.	3.8	147
218	Ion Channels in the Eye. Advances in Protein Chemistry and Structural Biology, 2016, 104, 157-231.	1.0	22
219	Plasma membrane dynamics and tetrameric organisation of ABCG2 transporters in mammalian cells revealed by single particle imaging techniques. Biochimica Et Biophysica Acta - Molecular Cell Research, 2016, 1863, 19-29.	1.9	43
220	Pharmacological identification of cholinergic receptor subtypes on Drosophila melanogaster larval heart. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2016, 186, 45-57.	0.7	25
221	Shear stress mediates exocytosis of functional TRPV4 channels in endothelial cells. Cellular and Molecular Life Sciences, 2016, 73, 649-666.	2.4	70
222	The biophysics of piezo1 and piezo2 mechanosensitive channels. Biophysical Chemistry, 2016, 208, 26-33.	1.5	21
223	Mechanical stress activates NMDA receptors in the absence of agonists. Scientific Reports, 2017, 7, 39610.	1.6	68
224	Signatures of Mechanosensitive Gating. Biophysical Journal, 2017, 112, 3-9.	0.2	8
225	Mechanical Stimulation of Piezo1 Receptors Depends on Extracellular Matrix Proteins and Directionality of Force. Nano Letters, 2017, 17, 2064-2072.	4.5	100
226	Hypotonicity activates a voltage-dependent membrane conductance in N2a neuroblastoma cells. Biochemical and Biophysical Research Communications, 2017, 484, 331-335.	1.0	1

#	Article	IF	CITATIONS
227	Mechanical stretch triggers rapid epithelial cell division through Piezo1. Nature, 2017, 543, 118-121.	13.7	562
228	SWELL1 is a regulator of adipocyte size, insulin signalling and glucose homeostasis. Nature Cell Biology, 2017, 19, 504-517.	4.6	111
229	Heterologous Expression of the Piezo1-ASIC1 Chimera Induces Mechanosensitive Currents with Properties Distinct from Piezo1. Neuron, 2017, 94, 274-277.	3.8	20
230	Evidence for shear-mediated Ca2+ entry through mechanosensitive cation channels in human platelets and a megakaryocytic cell line. Journal of Biological Chemistry, 2017, 292, 9204-9217.	1.6	7 5
231	Role of Piezo Channels in Ultrasound-stimulated Dental Stem Cells. Journal of Endodontics, 2017, 43, 1130-1136.	1.4	69
232	Multi-compartment encapsulation of communicating droplets and droplet networks in hydrogel as a model for artificial cells. Scientific Reports, 2017, 7, 45167.	1.6	66
233	Epithelial Homeostasis: A Piezo of the Puzzle. Current Biology, 2017, 27, R232-R234.	1.8	9
234	Mechanically sensitive Al̂´nociceptors that innervate bone marrow respond to changes in intraâ€osseous pressure. Journal of Physiology, 2017, 595, 4399-4415.	1.3	43
235	Disrupting the blood–brain barrier by focused ultrasound induces sterile inflammation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E75-E84.	3.3	306
236	Recessive PIEZO2 stop mutation causes distal arthrogryposis with distal muscle weakness, scoliosis and proprioception defects. Journal of Human Genetics, 2017, 62, 497-501.	1.1	60
237	Piezo1 Channels in Vascular Development and the Sensing of Shear Stress. Current Topics in Membranes, 2017, 79, 37-57.	0.5	62
238	Genetic Diseases of PIEZO1 and PIEZO2 Dysfunction. Current Topics in Membranes, 2017, 79, 97-134.	0.5	94
239	Piezos thrive under pressure: mechanically activated ion channels in health and disease. Nature Reviews Molecular Cell Biology, 2017, 18, 771-783.	16.1	366
240	PIEZO2 as the anomalous mechanotransducer channel in auditory hair cells. Journal of Physiology, 2017, 595, 7039-7048.	1.3	21
241	Structural Biology: A Force-Sensitive Ion Channel Springs to Life. Current Biology, 2017, 27, R1017-R1020.	1.8	3
242	Regulation of genome organization and gene expression by nuclear mechanotransduction. Nature Reviews Molecular Cell Biology, 2017, 18, 717-727.	16.1	301
243	Disorders of erythrocyte hydration. Blood, 2017, 130, 2699-2708.	0.6	94
244	Origin of the Force. Current Topics in Membranes, 2017, 79, 59-96.	0.5	63

#	Article	IF	CITATIONS
245	Mechanosensory Transduction in Drosophila Melanogaster. Springer Briefs in Biochemistry and Molecular Biology, 2017, , .	0.3	6
246	A Portable Ultrasound System for Non-Invasive Ultrasonic Neuro-Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 2509-2515.	2.7	38
247	Mechanosensitive Piezo Channels in the Gastrointestinal Tract. Current Topics in Membranes, 2017, 79, 219-244.	0.5	59
248	Investigating the structural dynamics of the PIEZO1 channel activation and inactivation by coarseâ€grained modeling. Proteins: Structure, Function and Bioinformatics, 2017, 85, 2198-2208.	1.5	7
249	Stimulation of 3D osteogenesis by mesenchymal stem cells using a nanovibrational bioreactor. Nature Biomedical Engineering, 2017, 1, 758-770.	11.6	77
250	Novel mechanisms of PIEZO1 dysfunction in hereditary xerocytosis. Blood, 2017, 130, 1845-1856.	0.6	101
251	TFOS DEWS II pain and sensation report. Ocular Surface, 2017, 15, 404-437.	2.2	437
252	A mechanically activated ion channel is functionally expressed in the MrgprB4 positive sensory neurons, which detect stroking of hairy skin in mice. Neuroscience Letters, 2017, 653, 139-145.	1.0	7
253	A Microfluidic Approach for Studying Piezo Channels. Current Topics in Membranes, 2017, 79, 309-334.	0.5	10
255	Piezo1 protein induces the apoptosis of human osteoarthritis-derived chondrocytes by activating caspase-12, the signaling marker of ER stress. International Journal of Molecular Medicine, 2017, 40, 845-853.	1.8	34
256	The Kinetics and the Permeation Properties of Piezo Channels. Current Topics in Membranes, 2017, 79, 275-307.	0.5	29
257	Grip strength in mice with joint inflammation: A rheumatology function test sensitive to pain and analgesia. Neuropharmacology, 2017, 125, 231-242.	2.0	56
258	Voltage-gated calcium flux mediates <i>Escherichia coli</i> mechanosensation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 9445-9450.	3.3	110
259	Piezo channels and GsMTx4: Two milestones in our understanding of excitatory mechanosensitive channels and their role in pathology. Progress in Biophysics and Molecular Biology, 2017, 130, 244-253.	1.4	59
260	Inactivation of Mechanically Activated Piezo1 Ion Channels Is Determined by the C-Terminal Extracellular Domain and the Inner Pore Helix. Cell Reports, 2017, 21, 2357-2366.	2.9	76
261	A protein interaction mechanism for suppressing the mechanosensitive Piezo channels. Nature Communications, 2017, 8, 1797.	5.8	97
262	Transduction of Repetitive Mechanical Stimuli by Piezo1 and Piezo2 Ion Channels. Cell Reports, 2017, 19, 2572-2585.	2.9	92
263	Mechanosensing in the Drosophila nervous system. Seminars in Cell and Developmental Biology, 2017, 71, 22-29.	2.3	7

#	Article	IF	CITATIONS
264	Adding dimension to cellular mechanotransduction: Advances in biomedical engineering of multiaxial cell-stretch systems and their application to cardiovascular biomechanics and mechano-signaling. Progress in Biophysics and Molecular Biology, 2017, 130, 170-191.	1.4	27
265	Red blood cell Gardos channel (KCNN4): the essential determinant of erythrocyte dehydration in hereditary xerocytosis. Haematologica, 2017, 102, e415-e418.	1.7	42
266	Stressed podocytesâ€"mechanical forces, sensors, signaling and response. Pflugers Archiv European Journal of Physiology, 2017, 469, 937-949.	1.3	62
267	Touch, Tension, and Transduction – The Function and Regulation of Piezo Ion Channels. Trends in Biochemical Sciences, 2017, 42, 57-71.	3.7	384
268	Mechanosensitive ion channel Piezo2 is important for enterochromaffin cell response to mechanical forces. Journal of Physiology, 2017, 595, 79-91.	1.3	121
269	Mechanosensory hair cells express two molecularly distinct mechanotransduction channels. Nature Neuroscience, 2017, 20, 24-33.	7.1	106
270	Role of TRP Channels in Dinoflagellate Mechanotransduction. Biological Bulletin, 2017, 233, 151-167.	0.7	14
271	Piezo type mechanosensitive ion channel component 1 functions as a regulator of the cell fate determination of mesenchymal stem cells. Scientific Reports, 2017, 7, 17696.	1.6	155
272	A Tour de Force. Current Topics in Membranes, 2017, 79, 1-36.	0.5	33
273	Mechanosensory Transduction: Focus on Ion Channels \hat{a}^{-} , 2017, , .		16
274	Biophysical Tools to Study Cellular Mechanotransduction. Bioengineering, 2017, 4, 12.	1.6	34
275	Molecular Mechanisms That Contribute to Bone Marrow Pain. Frontiers in Neurology, 2017, 8, 458.	1.1	31
276	TMC2 Modifies Permeation Properties of the Mechanoelectrical Transducer Channel in Early Postnatal Mouse Cochlear Outer Hair Cells. Frontiers in Molecular Neuroscience, 2017, 10, 326.	1.4	29
277	Direct measurement of TRPV4 and PIEZO1 activity reveals multiple mechanotransduction pathways in chondrocytes. ELife, 2017, 6, .	2.8	190
278	In Touch With the Mechanosensitive Piezo Channels. Current Topics in Membranes, 2017, 79, 159-195.	0.5	48
279	The Structural Basis for Sensing byÂthe Piezo1 Protein. Current Topics in Membranes, 2017, 79, 135-158.	0.5	8
280	The Piezoelectric Biosensors: Principles and Applications, a Review. International Journal of Electrochemical Science, 2017, 12, 496-506.	0.5	121
281	The Function of the Novel Mechanical Activated Ion Channel Piezo1 in the Human Osteosarcoma Cells. Medical Science Monitor, 2017, 23, 5070-5082.	0.5	33

#	Article	IF	CITATIONS
282	Yoda1 analogue (<scp>D</scp> ooku1) which antagonizes <scp>Y</scp> oda1â€evoked activation of <scp>P</scp> iezo1 and aortic relaxation. British Journal of Pharmacology, 2018, 175, 1744-1759.	2.7	119
283	Feedback between tissue packing and neurogenesis in the zebrafish neural tube. Development (Cambridge), 2018, 145, .	1.2	20
285	Dynamic force patterns promote collective cell movements during embryonic wound repair. Nature Physics, 2018, 14, 750-758.	6.5	55
286	PIEZO1 functions as a potential oncogene by promoting cell proliferation and migration in gastric carcinogenesis. Molecular Carcinogenesis, 2018, 57, 1144-1155.	1.3	69
287	Salt water and skin interactions: new lines of evidence. International Journal of Biometeorology, 2018, 62, 1345-1360.	1.3	39
288	The oscillation of intracellular Ca2+ influx associated with the circadian expression of Piezo1 and TRPV4 in the bladder urothelium. Scientific Reports, 2018, 8, 5699.	1.6	23
289	A lever-like transduction pathway for long-distance chemical- and mechano-gating of the mechanosensitive Piezo1 channel. Nature Communications, 2018, 9, 1300.	5.8	159
290	Mechanoelectrical transduction in chondrocytes. Clinical and Experimental Pharmacology and Physiology, 2018, 45, 481-488.	0.9	41
291	Mechanical regulation of stem-cell differentiation by the stretch-activated Piezo channel. Nature, 2018, 555, 103-106.	13.7	258
292	Yoda1-induced phosphorylation of Akt and ERK1/2 does not require Piezo1 activation. Biochemical and Biophysical Research Communications, 2018, 497, 220-225.	1.0	29
293	Structure and mechanogating mechanism of the Piezo1 channel. Nature, 2018, 554, 487-492.	13.7	376
294	Mechano-sensitization of mammalian neuronal networks through expression of the bacterial mechanosensitive MscL channel. Journal of Cell Science, 2018, 131, .	1.2	16
295	Other Modern Methods for Studying Biomembranes. , 2018, , 393-421.		0
296	The role of extracellular matrix stiffness in megakaryocyte and platelet development and function. American Journal of Hematology, 2018, 93, 430-441.	2.0	45
297	Structure of the mechanically activated ion channel Piezo1. Nature, 2018, 554, 481-486.	13.7	401
298	Cutting Edge: Piezo1 Mechanosensors Optimize Human T Cell Activation. Journal of Immunology, 2018, 200, 1255-1260.	0.4	109
299	Mechanical Transduction and the Dark Energy of Biology. Biophysical Journal, 2018, 114, 3-9.	0.2	14
300	Amino acid composition and nutritional value evaluation of Chinese chestnut (<i>Castanea) Tj ETQq1 1 0.78431</i>	4 rgBT /Ον	erlock 10 Tf

#	Article	IF	CITATIONS
301	Activation of Mechanosensitive Transient Receptor Potential/Piezo Channels in Odontoblasts Generates Action Potentials in Cocultured Isolectin B 4 –negative Medium-sized Trigeminal Ganglion Neurons. Journal of Endodontics, 2018, 44, 984-991.e2.	1.4	28
302	Mechanobiology in vascular remodeling. National Science Review, 2018, 5, 933-946.	4.6	18
303	Piezo channel mechanisms in health and disease. Journal of Physiology, 2018, 596, 965-967.	1.3	18
304	VoltageÂgating of mechanosensitive PIEZO channels. Nature Communications, 2018, 9, 1096.	5.8	118
305	Activation of Piezo1 but Not NaV1.2 Channels by Ultrasound at 43 MHz. Ultrasound in Medicine and Biology, 2018, 44, 1217-1232.	0.7	111
306	The mechanosensitive Piezo1 channel: structural features and molecular bases underlying its ion permeation and mechanotransduction. Journal of Physiology, 2018, 596, 969-978.	1.3	56
307	Cloning, overexpression, and purification of glucose-6-phosphate dehydrogenase of Pseudomonas aeruginosa. Protein Expression and Purification, 2018, 142, 53-61.	0.6	12
308	Beyond Cell–Cell Adhesion: Sensational Cadherins for Hearing and Balance. Cold Spring Harbor Perspectives in Biology, 2018, 10, a029280.	2.3	44
309	Cardiac Stretch-Activated Channels and Mechano-Electric Coupling. , 2018, , 128-139.		2
310	Endothelial Piezo1 channels as sensors of exercise. Journal of Physiology, 2018, 596, 979-984.	1.3	30
311	Membrane Biophysics. , 2018, , .		0
312	Exercise-Induced Cardioprotection via eNOS: A Putative Role of Red Blood Cell Signaling. Current Medicinal Chemistry, 2018, 25, 4457-4474.	1.2	14
313	Mechanically activated ion channel PIEZO1 is required for lymphatic valve formation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12817-12822.	3.3	188
314	Infection Augments Expression of Mechanosensing Piezo1 Channels in Amyloid Plaque-Reactive Astrocytes. Frontiers in Aging Neuroscience, 2018, 10, 332.	1.7	57
315	Mechanomedicine. Biophysical Reviews, 2018, 10, 1257-1262.	1.5	17
317	The S6 gate in regulatory Kv6 subunits restricts heteromeric K+ channel stoichiometry. Journal of General Physiology, 2018, 150, 1702-1721.	0.9	11
318	Immobilization of Nonactivated Unfixed Platelets for Real-Time Single-Cell Analysis. Methods in Molecular Biology, 2018, 1812, 1-11.	0.4	1
319	Targeted next generation sequencing for the diagnosis of patients with rare congenital anemias. European Journal of Haematology, 2018, 101, 297-304.	1.1	27

#	Article	IF	CITATIONS
320	Probing the gating mechanism of the mechanosensitive channel Piezo1 with the small molecule Yoda1. Nature Communications, 2018, 9, 2029.	5.8	104
321	Parathyroid Hormone-Related Peptide Elicits Peripheral TRPV1-dependent Mechanical Hypersensitivity. Frontiers in Cellular Neuroscience, 2018, 12, 38.	1.8	20
322	Mechanically Gated Ion Channels in Mammalian Hair Cells. Frontiers in Cellular Neuroscience, 2018, 12, 100.	1.8	47
323	Cell Mechanotransduction With Piconewton Forces Applied by Optical Tweezers. Frontiers in Cellular Neuroscience, 2018, 12, 130.	1.8	51
324	PIEZO1 Channel Is a Potential Regulator of Synovial Sarcoma Cell-Viability. International Journal of Molecular Sciences, 2018, 19, 1452.	1.8	27
325	Pharmacological Strategies for Manipulating Plant Ca2+ Signalling. International Journal of Molecular Sciences, 2018, 19, 1506.	1.8	34
326	Racemic crystal structures of peptide toxins, GsMTx4 prepared by protein total synthesis. Journal of Peptide Science, 2018, 24, e3112.	0.8	10
327	OSM-9 and an amiloride-sensitive channel, but not PKD-2, are involved in mechanosensation in C. elegans male ray neurons. Scientific Reports, 2018, 8, 7192.	1.6	10
328	PIEZO channel protein naturally expressed in human breast cancer cell MDA-MB-231 as probed by atomic force microscopy. AIP Advances, 2018, 8, 055101.	0.6	11
329	Molecular Structure of the Hair Cell Mechanoelectrical Transduction Complex. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a033167.	2.9	36
330	Myosin-II mediated traction forces evoke localized Piezo1-dependent Ca2+ flickers. Communications Biology, 2019, 2, 298.	2.0	141
331	lon channels in sarcoma: pathophysiology and treatment options. Pflugers Archiv European Journal of Physiology, 2019, 471, 1163-1171.	1.3	10
332	The cilium as a force sensorâ" myth versus reality. Journal of Cell Science, 2019, 132, .	1.2	63
333	Profiling of how nociceptor neurons detect danger – new and old foes. Journal of Internal Medicine, 2019, 286, 268-289.	2.7	18
334	Electrophysiological-mechanical coupling in the neuronal membrane and its role in ultrasound neuromodulation and general anaesthesia. Acta Biomaterialia, 2019, 97, 116-140.	4.1	50
335	Five miRNAs-mediated PIEZO2 downregulation, accompanied with activation of Hedgehog signaling pathway, predicts poor prognosis of breast cancer. Aging, 2019, 11, 2628-2652.	1.4	58
336	Harmonic Generation Microscopy 2.0: New Tricks Empowering Intravital Imaging for Neuroscience. Frontiers in Molecular Biosciences, 2019, 6, 99.	1.6	11
337	PIEZO1 and TRPV4, which Are Distinct Mechano-Sensors in the Osteoblastic MC3T3-E1 Cells, Modify Cell-Proliferation. International Journal of Molecular Sciences, 2019, 20, 4960.	1.8	48

#	Article	IF	CITATIONS
338	Piezo Ion Channels in Cardiovascular Mechanobiology. Trends in Pharmacological Sciences, 2019, 40, 956-970.	4.0	114
339	PIEZO1-Mediated Currents Are Modulated by Substrate Mechanics. ACS Nano, 2019, 13, 13545-13559.	7.3	44
340	The <i>Drosophila</i> Trpm channel mediates calcium influx during egg activation. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 18994-19000.	3.3	29
341	Force-induced conformational changes in PIEZO1. Nature, 2019, 573, 230-234.	13.7	216
342	Structure and mechanogating of the mammalian tactile channel PIEZO2. Nature, 2019, 573, 225-229.	13.7	218
343	Piezo1 mechanosensitive channels: what are they and why are they important. Biophysical Reviews, 2019, 11, 795-805.	1.5	97
344	Mechanobiology of cells and cell systems, such as organoids. Biophysical Reviews, 2019, 11, 721-728.	1.5	22
345	A mechanism for touch. Nature, 2019, 573, 199-200.	13.7	2
346	Biophysical Principles of Ion-Channel-Mediated Mechanosensory Transduction. Cell Reports, 2019, 29, 1-12.	2.9	154
347	Mechanotransduction in cardiovascular morphogenesis and tissue engineering. Current Opinion in Genetics and Development, 2019, 57, 106-116.	1.5	38
348	Impairment of proprioceptive movement and mechanical nociception in <scp><i>Drosophila melanogaster</i></scp> larvae lacking Ppk30, a <i>Drosophila</i> member of the Degenerin/Epithelial Sodium Channel family. Genes, Brain and Behavior, 2019, 18, e12545.	1.1	10
349	Dynamic Interactions of Plant CNGC Subunits and Calmodulins Drive Oscillatory Ca2+ Channel Activities. Developmental Cell, 2019, 48, 710-725.e5.	3.1	92
350	Probing Single-Cell Mechanical Allostasis Using Ultrasound Tweezers. Cellular and Molecular Bioengineering, 2019, 12, 415-427.	1.0	10
351	Cryo-EM structure of OSCA1.2 from <i>Oryza sativa</i> elucidates the mechanical basis of potential membrane hyperosmolality gating. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14309-14318.	3.3	71
352	Expression and distribution of PIEZO1 in the mouse urinary tract. American Journal of Physiology - Renal Physiology, 2019, 317, F303-F321.	1.3	83
353	Endothelial cell Piezo1 mediates pressure-induced lung vascular hyperpermeability via disruption of adherens junctions. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12980-12985.	3.3	154
354	The neuropeptide GsMTx4 inhibits a mechanosensitive BK channel through the voltage-dependent modification specific to mechano-gating. Journal of Biological Chemistry, 2019, 294, 11892-11909.	1.6	15
355	Mechanical Stretch Increases Expression of CXCL1 in Liver Sinusoidal Endothelial Cells to Recruit Neutrophils, Generate Sinusoidal Microthombi, and Promote Portal Hypertension. Gastroenterology, 2019, 157, 193-209.e9.	0.6	134

#	Article	IF	CITATIONS
356	Probing membrane protein properties using droplet interface bilayers. Experimental Biology and Medicine, 2019, 244, 709-720.	1.1	14
357	Shear stress induced nuclear shrinkage through activation of Piezo1 channels in epithelial cells. Journal of Cell Science, 2019, 132, .	1.2	32
358	Ion Channels Involved in Tooth Pain. International Journal of Molecular Sciences, 2019, 20, 2266.	1.8	30
359	A Neural Circuit Encoding the Experience of Copulation in Female Drosophila. Neuron, 2019, 102, 1025-1036.e6.	3.8	53
360	Red Blood Cell Membrane Conductance in Hereditary Haemolytic Anaemias. Frontiers in Physiology, 2019, 10, 386.	1.3	8
361	Tools for Understanding Nanoscale Lipid Regulation of Ion Channels. Trends in Biochemical Sciences, 2019, 44, 795-806.	3.7	66
362	The Piezo2 ion channel is mechanically activated by low-threshold positive pressure. Scientific Reports, 2019, 9, 6446.	1.6	33
363	Molecular streaming and its voltage control in ångström-scale channels. Nature, 2019, 567, 87-90.	13.7	170
364	Rapid flow-induced activation of $\widehat{Gl}_{q/11}$ is independent of Piezo1 activation. American Journal of Physiology - Cell Physiology, 2019, 316, C741-C752.	2.1	19
365	L-type calcium channel modulates mechanosensitivity of the cardiomyocyte cell line H9c2. Cell Calcium, 2019, 79, 68-74.	1.1	13
366	Genetic analysis of a Piezo-like protein suppressing systemic movement of plant viruses in Arabidopsis thaliana. Scientific Reports, 2019, 9, 3187.	1.6	42
367	Distal arthrogryposis type 5 and <i>PIEZO2</i> novel variant in a Canadian family. American Journal of Medical Genetics, Part A, 2019, 179, 1034-1041.	0.7	6
368	The Mechanosensitive Ion Channel Piezo Inhibits Axon Regeneration. Neuron, 2019, 102, 373-389.e6.	3.8	132
369	Mechanically Activated Piezo Channels Mediate Touch and Suppress Acute Mechanical Pain Response in Mice. Cell Reports, 2019, 26, 1419-1431.e4.	2.9	86
370	MrgprX1 mediates neuronal excitability and itch through tetrodotoxin-resistant sodium channels. Itch (Philadelphia, Pa), 2019, 4, e28-e28.	1.0	16
371	Mammalian TRP ion channels are insensitive to membrane stretch. Journal of Cell Science, 2019, 132, .	1.2	105
372	Adenosine Triphosphate Release and P2 Receptor Signaling in Piezo1 Channel-Dependent Mechanoregulation. Frontiers in Pharmacology, 2019, 10, 1304.	1.6	35
373	lon Channel Pharmacology for Pain Modulation. Handbook of Experimental Pharmacology, 2019, 260, 161-186.	0.9	35

#	Article	IF	Citations
374	Mechanical exposure and diacerein treatment modulates integrin-FAK-MAPKs mechanotransduction in human osteoarthritis chondrocytes. Cellular Signalling, 2019, 56, 23-30.	1.7	32
375	From single cells to tissue selfâ€organization. FEBS Journal, 2019, 286, 1495-1513.	2.2	52
376	Piezo proteins: incidence and abundance in the enteric nervous system. Is there a link with mechanosensitivity?. Cell and Tissue Research, 2019, 375, 605-618.	1.5	21
377	The mechanosensitive Piezo1 channel: a threeâ€bladed propellerâ€like structure and a leverâ€like mechanogating mechanism. FEBS Journal, 2019, 286, 2461-2470.	2.2	70
378	Study on the mechanism of excessive apoptosis of nucleus pulposus cells induced by shRNAâ€Piezo1 under abnormal mechanical stretch stress. Journal of Cellular Biochemistry, 2019, 120, 3989-3997.	1.2	17
379	Noxious Mechanosensation. , 0, , 200-232.		1
380	Mechanotransduction and Uterine Blood Flow in Preeclampsia: The Role of Mechanosensing Piezo 1 lon Channels. American Journal of Hypertension, 2020, 33, 1-9.	1.0	25
381	Inhibition of Piezo1 attenuates demyelination in the central nervous system. Glia, 2020, 68, 356-375.	2.5	48
382	Levering Mechanically Activated Piezo Channels for Potential Pharmacological Intervention. Annual Review of Pharmacology and Toxicology, 2020, 60, 195-218.	4.2	85
383	Extracellular Matrix in Secondary Palate Development. Anatomical Record, 2020, 303, 1543-1556.	0.8	7
384	Piezo channel plays a part in retinal ganglion cell damage. Experimental Eye Research, 2020, 191, 107900.	1.2	39
385	Characterizing the Mechanical Properties of Ectopic Axonal Receptive Fields in Inflamed Nerves and Following Axonal Transport Disruption. Neuroscience, 2020, 429, 10-22.	1.1	9
386	Mechanoâ€electric and mechanoâ€ehemoâ€transduction in cardiomyocytes. Journal of Physiology, 2020, 598, 1285-1305.	1.3	30
387	Behavioral and Neural Bases of Tactile Shape Discrimination Learning in Head-Fixed Mice. Neuron, 2020, 108, 953-967.e8.	3.8	20
388	Piezo1 Forms Specific, Functionally Important Interactions with Phosphoinositides and Cholesterol. Biophysical Journal, 2020, 119, 1683-1697.	0.2	60
389	Mechanoactivation of NOX2-generated ROS elicits persistent TRPM8 Ca ²⁺ signals that are inhibited by oncogenic KRas. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26008-26019.	3.3	19
390	Recent advances in bioelectronics chemistry. Chemical Society Reviews, 2020, 49, 7978-8035.	18.7	54
391	Ultrasonic Neuromodulation and Sonogenetics: A New Era for Neural Modulation. Frontiers in Physiology, 2020, 11, 787.	1.3	27

#	Article	IF	Citations
392	The vital role for nitric oxide in intraocular pressure homeostasis. Progress in Retinal and Eye Research, 2021, 83, 100922.	7. 3	48
393	Tumorâ€Triggered Disassembly of a Multipleâ€Agentâ€Therapy Probe for Efficient Cellular Internalization. Angewandte Chemie - International Edition, 2020, 59, 20405-20410.	7.2	74
394	Tumorâ€Triggered Disassembly of a Multipleâ€Agentâ€Therapy Probe for Efficient Cellular Internalization. Angewandte Chemie, 2020, 132, 20585-20590.	1.6	10
395	A novel PIEZO1 mutation in a patient with dehydrated hereditary stomatocytosis: a case report and a brief review of literature. Italian Journal of Pediatrics, 2020, 46, 102.	1.0	8
396	Biomechanical signal communication in vascular smooth muscle cells. Journal of Cell Communication and Signaling, 2020, 14, 357-376.	1.8	15
397	Less Is More: Rare Pulmonary Neuroendocrine Cells Function as Critical Sensors in Lung. Developmental Cell, 2020, 55, 123-132.	3.1	27
398	Lymphatic Vessels and Their Surroundings: How Local Physical Factors Affect Lymph Flow. Biology, 2020, 9, 463.	1.3	28
399	Mechanobiology of the brain in ageing and Alzheimer's disease. European Journal of Neuroscience, 2021, 53, 3851-3878.	1.2	61
400	Matrix-transmitted paratensile signaling enables myofibroblast ⟨scp⟩–⟨/scp⟩ fibroblast cross talk in fibrosis expansion. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 10832-10838.	3.3	48
401	Endothelial inwardly-rectifying K+ channels as a key component of shear stress-induced mechanotransduction. Current Topics in Membranes, 2020, 85, 59-88.	0.5	6
402	Adipocyte Piezo1 mediates obesogenic adipogenesis through the FGF1/FGFR1 signaling pathway in mice. Nature Communications, 2020, 11, 2303.	5.8	76
403	Integrating Biophysics in Toxicology. Cells, 2020, 9, 1282.	1.8	6
404	Mechanism underlying cranial nerve rhizopathy. Medical Hypotheses, 2020, 142, 109801.	0.8	12
405	Functional evolution of vertebrate sensory receptors. Hormones and Behavior, 2020, 124, 104771.	1.0	20
406	Tubeimoside I Antagonizes Yoda1-Evoked Piezo1 Channel Activation. Frontiers in Pharmacology, 2020, 11, 768.	1.6	23
407	Piezo1 activates the NLRP3 inflammasome in nucleus pulposus cell-mediated by Ca2+/NF-κB pathway. International Immunopharmacology, 2020, 85, 106681.	1.7	49
408	The function of Piezo1 in colon cancer metastasis and its potential regulatory mechanism. Journal of Cancer Research and Clinical Oncology, 2020, 146, 1139-1152.	1.2	67
409	A Plug-and-Latch Mechanism for Gating the Mechanosensitive Piezo Channel. Neuron, 2020, 106, 438-451.e6.	3.8	53

#	Article	IF	CITATIONS
410	The Urothelium: Life in a Liquid Environment. Physiological Reviews, 2020, 100, 1621-1705.	13.1	92
411	It takes more than two to tango: mechanosignaling of the endothelial surface. Pflugers Archiv European Journal of Physiology, 2020, 472, 419-433.	1.3	27
412	Integrating Chemistry and Mechanics: The Forces Driving Axon Growth. Annual Review of Cell and Developmental Biology, 2020, 36, 61-83.	4.0	58
413	K+ and Ca2+ Channels Regulate Ca2+ Signaling in Chondrocytes: An Illustrated Review. Cells, 2020, 9, 1577.	1.8	16
414	Mechanosensitive Piezo Channels in Cancer: Focus on altered Calcium Signaling in Cancer Cells and in Tumor Progression. Cancers, 2020, 12, 1780.	1.7	65
415	Identification of potential mechanosensitive ion channels involved in texture discrimination during <i>Drosophila suzukii</i> eggâ€laying behaviour. Insect Molecular Biology, 2020, 29, 444-451.	1.0	10
416	Mechanotransduction in T Cell Development, Differentiation and Function. Cells, 2020, 9, 364.	1.8	19
417	Mechanosensitive Piezo1 ion channel protein (PIEZO1 gene): update and extended mutation analysis of hereditary xerocytosis in India. Annals of Hematology, 2020, 99, 715-727.	0.8	9
418	RNA interference supports a role for Nanchung–Inactive in mechanotransduction by the cockroach, Periplaneta americana, tactile spine. Invertebrate Neuroscience, 2020, 20, 1.	1.8	9
419	Mechanosensitive Ion Channels: Structural Features Relevant to Mechanotransduction Mechanisms. Annual Review of Neuroscience, 2020, 43, 207-229.	5.0	150
420	Polynuclear Ruthenium Amines Inhibit K2P Channels via a "Finger in the Dam―Mechanism. Cell Chemical Biology, 2020, 27, 511-524.e4.	2.5	30
421	Inactivation Kinetics and Mechanical Gating of Piezo1 Ion Channels Depend on Subdomains within the Cap. Cell Reports, 2020, 30, 870-880.e2.	2.9	46
422	Mechanisms of Synergistic Interactions of Diabetes and Hypertension in Chronic Kidney Disease: Role of Mitochondrial Dysfunction and ER Stress. Current Hypertension Reports, 2020, 22, 15.	1.5	24
423	Does Mechanocrine Signaling by Liver Sinusoidal Endothelial Cells Offer New Opportunities for the Development of Anti-fibrotics?. Frontiers in Medicine, 2019, 6, 312.	1.2	12
424	The role of Piezo proteins and cellular mechanosensing in tuning the fate of transplanted stem cells. Cell and Tissue Research, 2020, 381, 1-12.	1.5	23
425	Mechanobiology, tissue development, and tissue engineering. , 2020, , 237-256.		3
426	Direct and indirect cholesterol effects on membrane proteins with special focus on potassium channels. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158706.	1.2	50
427	Piezo1 is required for outflow tract and aortic valve development Journal of Molecular and Cellular Cardiology, 2020, 143, 51-62.	0.9	44

#	Article	IF	CITATIONS
428	Pharmacological profiling of stretch activated channels in proprioceptive neurons. Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology, 2020, 233, 108765.	1.3	7
429	Cardiac Mechano-Electric Coupling: Acute Effects of Mechanical Stimulation on Heart Rate and Rhythm. Physiological Reviews, 2021, 101, 37-92.	13.1	96
430	Mechanical Feed-Forward Loops Contribute to Idiopathic Pulmonary Fibrosis. American Journal of Pathology, 2021, 191, 18-25.	1.9	29
431	Drosophila Mechanosensory Transduction. Trends in Neurosciences, 2021, 44, 323-335.	4.2	27
432	The Mechanosensory Transduction Machinery in Inner Ear Hair Cells. Annual Review of Biophysics, 2021, 50, 31-51.	4.5	45
433	A New Hope in Spinal Degenerative Diseases: Piezo1. BioMed Research International, 2021, 2021, 1-19.	0.9	12
435	Identification and functional characterization of the Piezo1 channel pore domain. Journal of Biological Chemistry, 2021, 296, 100225.	1.6	18
436	GPCRs Under Flow and Pressure. Cardiac and Vascular Biology, 2021, , 97-126.	0.2	0
437	Hemodynamic Control of Endothelial Cell Fates in Development. Cardiac and Vascular Biology, 2021, , 127-166.	0.2	0
438	Structure, kinetic properties and biological function of mechanosensitive Piezo channels. Cell and Bioscience, 2021, 11, 13.	2.1	96
439	Biomechanics in Small Artery Remodeling. Cardiac and Vascular Biology, 2021, , 47-68.	0.2	0
440	A bibliometric analysis and review of recent researches on Piezo (2010-2020). Channels, 2021, 15, 310-321.	1.5	4
441	Activating mechanosensitive channels embedded in droplet interface bilayers using membrane asymmetry. Chemical Science, 2021, 12, 2138-2145.	3.7	15
442	Mechanically induced integrin ligation mediates intracellular calcium signaling with single pulsating cavitation bubbles. Theranostics, 2021, 11, 6090-6104.	4.6	8
443	Effective Ultrasonic Stimulation in Human Peripheral Nervous System. IEEE Transactions on Biomedical Engineering, 2022, 69, 15-22.	2.5	13
444	A mechanosensitive peri-arteriolar niche for osteogenesis and lymphopoiesis. Nature, 2021, 591, 438-444.	13.7	158
445	Antinociceptive Effects of Sinomenine Combined With Ligustrazine or Paracetamol in Animal Models of Incisional and Inflammatory Pain. Frontiers in Physiology, 2020, 11, 523769.	1.3	7
446	Mechanosensitive Ion Channel Piezo 1 Activated by Matrix Stiffness Regulates Oxidative Stress-Induced Senescence and Apoptosis in Human Intervertebral Disc Degeneration. Oxidative Medicine and Cellular Longevity, 2021, 2021, 1-13.	1.9	38

#	ARTICLE	IF	CITATIONS
447	The mechanosensitive Piezo1 channel mediates heart mechano-chemo transduction. Nature Communications, 2021, 12, 869.	5.8	106
448	Polymodal Functionality of C. elegans OLL Neurons in Mechanosensation and Thermosensation. Neuroscience Bulletin, 2021, 37, 611-622.	1.5	3
449	The SWELL1-LRRC8 complex regulates endothelial AKT-eNOS signaling and vascular function. ELife, 2021, 10, .	2.8	41
450	Control of feeding by Piezo-mediated gut mechanosensation in Drosophila. ELife, 2021, 10, .	2.8	39
451	Biophysics and Modeling of Mechanotransduction in Neurons: A Review. Mathematics, 2021, 9, 323.	1.1	4
452	Adherent cell remodeling on micropatterns is modulated by Piezo1 channels. Scientific Reports, 2021, 11, 5088.	1.6	10
453	Piezo1 plays a role in optic nerve head astrocyte reactivity. Experimental Eye Research, 2021, 204, 108445.	1.2	13
454	Piezo1 Channels Contribute to the Regulation of Human Atrial Fibroblast Mechanical Properties and Matrix Stiffness Sensing. Cells, 2021, 10, 663.	1.8	43
455	Manipulation of Stem Cells Fates: The Master and Multifaceted Roles of Biophysical Cues of Biomaterials. Advanced Functional Materials, 2021, 31, 2010626.	7.8	62
456	A spinal organ of proprioception for integrated motor action feedback. Neuron, 2021, 109, 1188-1201.e7.	3.8	36
457	The Calcium Signaling Mechanisms in Arterial Smooth Muscle and Endothelial Cells., 2021, 11, 1831-1869.		17
459	Trends in Piezo Channel Research Over the Past Decade: A Bibliometric Analysis. Frontiers in Pharmacology, 2021, 12, 668714.	1.6	30
460	Channelling the Force to Reprogram the Matrix: Mechanosensitive Ion Channels in Cardiac Fibroblasts. Cells, 2021, 10, 990.	1.8	38
461	Iron–Palladium magnetic nanoparticles for decolorizing rhodamine B and scavenging reactive oxygen species. Journal of Colloid and Interface Science, 2021, 588, 646-656.	5. 0	7
462	Mechanosensation and Mechanotransduction by Lymphatic Endothelial Cells Act as Important Regulators of Lymphatic Development and Function. International Journal of Molecular Sciences, 2021, 22, 3955.	1.8	14
463	Mechanotransduction channel Piezo is widely expressed in the spider, Cupiennius salei, mechanosensory neurons and central nervous system. Scientific Reports, 2021, 11, 7994.	1.6	3
465	Piezoelectricity of the Transmembrane Protein <i>ba</i> ₃ Cytochrome <i>c</i> Oxidase. Advanced Functional Materials, 2021, 31, 2100884.	7.8	12
466	A high-content platform for physiological profiling and unbiased classification of individual neurons. Cell Reports Methods, 2021, 1, 100004.	1.4	6

#	Article	IF	CITATIONS
467	TLR4 signalling via Piezo1 engages and enhances the macrophage mediated host response during bacterial infection. Nature Communications, 2021, 12, 3519.	5.8	89
468	Gene transcription changes in a locust model of noise-induced deafness. Journal of Neurophysiology, 2021, 125, 2264-2278.	0.9	3
469	Structural Designs and Mechanogating Mechanisms of the Mechanosensitive Piezo Channels. Trends in Biochemical Sciences, 2021, 46, 472-488.	3.7	76
470	The Transient Receptor Potential Vanilloid Type 2 (TRPV2) Channel–A New Druggable Ca2+ Pathway in Red Cells, Implications for Red Cell Ion Homeostasis. Frontiers in Physiology, 2021, 12, 677573.	1.3	14
471	Piezo Channels: Awesome Mechanosensitive Structures in Cellular Mechanotransduction and Their Role in Bone. International Journal of Molecular Sciences, 2021, 22, 6429.	1.8	40
472	Piezo1 regulates intestinal epithelial function by affecting the tight junction protein claudin-1 via the ROCK pathway. Life Sciences, 2021, 275, 119254.	2.0	44
473	From stretch to deflection: the importance of context in the activation of mammalian, mechanically activated ion channels. FEBS Journal, 2022, 289, 4447-4469.	2.2	19
474	Periphery signals generated by Piezo-mediated stomach stretch and Neuromedin-mediated glucose load regulate the Drosophila brain nutrient sensor. Neuron, 2021, 109, 1979-1995.e6.	3.8	32
475	Probing PIEZO1 Localization upon Activation Using High-Resolution Atomic Force and Confocal Microscopy. Nano Letters, 2021, 21, 4950-4958.	4.5	21
476	Mechanosensitive Piezo1 Channel Evoked-Mechanical Signals in Atherosclerosis. Journal of Inflammation Research, 2021, Volume 14, 3621-3636.	1.6	20
477	Role of mechanosensitive ion channel Piezo1 in tumors. World Chinese Journal of Digestology, 2021, 29, 758-764.	0.0	0
478	Physiology and Pathophysiology of Mechanically Activated PIEZO Channels. Annual Review of Neuroscience, 2021, 44, 383-402.	5.0	31
479	Piezo2 Knockdown Inhibits Noxious Mechanical Stimulation and NGF-Induced Sensitization in A-Delta Bone Afferent Neurons. Frontiers in Physiology, 2021, 12, 644929.	1.3	23
480	Selective Chemical Activation of Piezo1 in Leukemia Cell Membrane: Single Channel Analysis. International Journal of Molecular Sciences, 2021, 22, 7839.	1.8	6
481	Piezo1 channels restrain regulatory T cells but are dispensable for effector CD4 ⁺ T cell responses. Science Advances, 2021, 7, .	4.7	45
483	Functional roles for PIEZO1 and PIEZO2 in urothelial mechanotransduction and lower urinary tract interoception. JCI Insight, 2021, 6, .	2.3	40
484	Protein Assembly by Design. Chemical Reviews, 2021, 121, 13701-13796.	23.0	123
485	Piezo-type mechanosensitive ion channel component 1 (Piezo1) in human cancer. Biomedicine and Pharmacotherapy, 2021, 140, 111692.	2.5	39

#	Article	IF	CITATIONS
486	On the molecular nature of large-pore channels. Journal of Molecular Biology, 2021, 433, 166994.	2.0	44
487	Single Impact Injury of Vertebral Endplates Without Structural Disruption, Initiates Disc Degeneration Through Piezo1 Mediated Inflammation and Metabolism Dysfunction. Spine, 2021, Publish Ahead of Print, .	1.0	10
488	Individual red blood cell nitric oxide production in sickle cell anemia: Nitric oxide production is increased and sickle shaped cells have unique morphologic change compared to discoid cells. Free Radical Biology and Medicine, 2021, 171, 143-155.	1.3	3
489	Mechanosensitive cation channel Piezo1 contributes to ventilator-induced lung injury by activating RhoA/ROCK1 in rats. Respiratory Research, 2021, 22, 250.	1.4	22
490	Mechanosensitivity in Pulmonary Circulation: Pathophysiological Relevance of Stretch-Activated Channels in Pulmonary Hypertension. Biomolecules, 2021, 11, 1389.	1.8	16
491	Modified N-linked glycosylation status predicts trafficking defective human Piezo1 channel mutations. Communications Biology, 2021, 4, 1038.	2.0	18
492	Piezo1 and BKCa channels in human atrial fibroblasts: Interplay and remodelling in atrial fibrillation. Journal of Molecular and Cellular Cardiology, 2021, 158, 49-62.	0.9	26
493	Piezo1-Mediated Mechanotransduction Promotes Cardiac Hypertrophy by Impairing Calcium Homeostasis to Activate Calpain/Calcineurin Signaling. Hypertension, 2021, 78, 647-660.	1.3	42
494	What Evolutionary Evidence Implies About the Identity of the Mechanoelectrical Couplers in Vascular Smooth Muscle Cells. Physiology, 2021, 36, 292-306.	1.6	6
496	Mechanisms underlying unidirectional laminar shear stress-mediated Nrf2 activation in endothelial cells: Amplification of low shear stress signaling by primary cilia. Redox Biology, 2021, 46, 102103.	3.9	8
497	Human digital merkel cells display pannexin1 immunoreactivity. Annals of Anatomy, 2022, 239, 151813.	1.0	2
499	Hemodynamic Forces, Endothelial Mechanotransduction, and Vascular Diseases. Magnetic Resonance in Medical Sciences, 2022, 21, 258-266.	1.1	14
500	Piezo type mechanosensitive ion channel component 1 facilitates gastric cancer omentum metastasis. Journal of Cellular and Molecular Medicine, 2021, 25, 2238-2253.	1.6	48
501	Molecular stretching modulates mechanosensing pathways. Protein Science, 2017, 26, 1337-1351.	3.1	55
502	TRPs in Hearing. Handbook of Experimental Pharmacology, 2014, 223, 899-916.	0.9	23
503	TRP Channels and Mechanical Transduction. , 2015, , 141-163.		3
504	The Molecular Mechanisms of Reaction Wood Induction. Springer Series in Wood Science, 2014, , 107-138.	0.8	8
505	Forceful patterning in mouse preimplantation embryos. Seminars in Cell and Developmental Biology, 2017, 71, 129-136.	2.3	3

#	ARTICLE	IF	CITATIONS
506	Amphipathic molecules modulate PIEZO1 activity. Biochemical Society Transactions, 2019, 47, 1833-1842.	1.6	26
520	Nonlinear fractional waves at elastic interfaces. Physical Review Fluids, 2017, 2, .	1.0	24
521	Piezo1 incorporates mechanical force signals into the genetic program that governs lymphatic valve development and maintenance. JCI Insight, 2019, 4, .	2.3	114
522	Mechanosensing and fibrosis. Journal of Clinical Investigation, 2018, 128, 74-84.	3.9	203
523	Lipid Regulation of Cardiac Ion Channels in Heart Disease. , 2013, , 77-100.		1
524	Fluorescence Methods for Monitoring Mechanosensitive Channels. , 2014, , 425-432.		1
525	Pulling in new directions: Myosin 2, Piezo, and metabolism. F1000Research, 2019, 8, 1486.	0.8	1
526	Identification and Analysis of Putative Homologues of Mechanosensitive Channels in Pathogenic Protozoa. PLoS ONE, 2013, 8, e66068.	1.1	57
527	Plasma Membrane Mechanical Stress Activates TRPC5 Channels. PLoS ONE, 2015, 10, e0122227.	1.1	40
528	Piezo Is Essential for Amiloride-Sensitive Stretch-Activated Mechanotransduction in Larval Drosophila Dorsal Bipolar Dendritic Sensory Neurons. PLoS ONE, 2015, 10, e0130969.	1.1	29
529	Matrix stiffness regulates myocardial differentiation of human umbilical cord mesenchymal stem cells. Aging, 2021, 13, 2231-2250.	1.4	26
530	The neuronal genome of Caenorhabditis elegans. WormBook, 2013, , 1-106.	5.3	220
531	The Effect of CO2, Intracellular pH and Extracellular pH on Mechanosensory Proprioceptor Responses in Crayfish and Crab. American Journal of Undergraduate Research, 2017, 14, .	0.3	8
532	Mechanical and Chemical Factors Required for Maintaining Cardiac Rhythm in Drosophila melanogaster Larva. Journal of Entomology, 2019, 16, 62-73.	0.2	8
533	Mechanical transduction by ion channels: A cautionary tale. World Journal of Neurology, 2015, 5, 74.	0.6	38
534	An alternative to force. ELife, 2015, 4, .	2.8	5
535	Mechanical sensitivity of Piezo1 ion channels can be tuned by cellular membrane tension. ELife, 2015, 4,	2.8	290
536	Myotubularin related protein-2 and its phospholipid substrate PIP2 control Piezo2-mediated mechanotransduction in peripheral sensory neurons. ELife, 2018, 7, .	2.8	37

#	Article	IF	CITATIONS
537	Piezo1 forms a slowly-inactivating mechanosensory channel in mouse embryonic stem cells. ELife, 2018, 7, .	2.8	61
538	OSCA/TMEM63 are an evolutionarily conserved family of mechanically activated ion channels. ELife, 2018, 7, .	2.8	230
539	A hydrophobic gate in the inner pore helix is the major determinant of inactivation in mechanosensitive Piezo channels. ELife, $2019,8,.$	2.8	53
540	The mechanosensitive Piezo1 channel is required for bone formation. ELife, 2019, 8, .	2.8	228
541	Piezo $1/2$ mediate mechanotrans duction essential for bone formation through concerted activation of NFAT-YAP1- $\tilde{A}\ddot{Y}$ -catenin. ELife, 2020, 9, .	2.8	161
542	TMEM87a/Elkin1, a component of a novel mechanoelectrical transduction pathway, modulates melanoma adhesion and migration. ELife, 2020, 9, .	2.8	43
543	Caenorhabditis elegans PIEZO channel coordinates multiple reproductive tissues to govern ovulation. ELife, 2020, 9, .	2.8	33
545	Hereditary Xerocytosis: Differential Behavior of PIEZO1 Mutations in the N-Terminal Extracellular Domain Between Red Blood Cells and HEK Cells. Frontiers in Physiology, 2021, 12, 736585.	1.3	6
547	Roles of mechanosensitive channel Piezo1/2 proteins in skeleton and other tissues. Bone Research, 2021, 9, 44.	5.4	63
548	Physiology of Ventilation. Biomathematical and Biomechanical Modeling of the Circulatory and Ventilatory Systems, 2014, , 353-440.	0.1	0
549	Cardiovascular Physiology. Biomathematical and Biomechanical Modeling of the Circulatory and Ventilatory Systems, 2014, , 157-352.	0.1	0
550	Anatomy of the Ventilatory Apparatus. Biomathematical and Biomechanical Modeling of the Circulatory and Ventilatory Systems, 2014, , 73-155.	0.1	1
551	Anatomy of the Cardiovascular Apparatus. Biomathematical and Biomechanical Modeling of the Circulatory and Ventilatory Systems, 2014, , 1-71.	0.1	0
553	Mechanotransduction and Vascular Resistance. , 2014, , 1-78.		0
554	Functional biology of ion channels: a review. Veterinary World, 2014, 7, 13-16.	0.7	1
555	Mechanotransduction and Vascular Resistance. , 2014, , 1-77.		0
556	Mechanotransduction and Vascular Resistance. , 2015, , 703-767.		0
557	Manualmedizinische und funktionell neurologische Strategie. , 2016, , 631-738.		0

#	Article	IF	Citations
559	Mechanotransduction in Drosophila Mechanoreceptors. SpringerBriefs in Biochemistry and Molecular Biology, 2017, , 43-61.	0.3	0
560	Drosophila Mechanotransduction Channels. SpringerBriefs in Biochemistry and Molecular Biology, 2017, , 63-79.	0.3	1
562	Sensory Mechanotransduction and Thermotransduction in Invertebrates. Frontiers in Neuroscience, 2017, , 65-84.	0.0	0
564	Basic electrophysiology in nociception . Journal of Allied Health Sciences, 2018, 9, 45-61.	0.0	0
569	Structural Analysis of Piezo1 Ion Channel Reveals the Relationship between Amino Acid Sequence Mutations and Human Diseases. Journal of Biosciences and Medicines, 2019, 07, 139-155.	0.1	2
571	A History of Pain Research. , 0, , 1-27.		0
578	Osmosensing and Signalling in Plants: Potential Role in Crop Improvement Under Climate Change. , 2021, , 11 -46.		3
580	Patch-seq of mouse DRG neurons reveals candidate genes for specific mechanosensory functions. Cell Reports, 2021, 37, 109914.	2.9	40
581	Forces generated by lamellipodial actin filament elongation regulate the WAVE complex during cell migration. Nature Cell Biology, 2021, 23, 1148-1162.	4.6	30
583	The molecular makeup of peripheral and central baroreceptors: stretching a role for Transient Receptor Potential (TRP), Epithelial Sodium Channel (ENaC), Acid Sensing Ion Channel (ASIC), and Piezo channels. Cardiovascular Research, 2022, 118, 3052-3070.	1.8	6
586	Astrocytes in the optic nerve head express putative mechanosensitive channels. Molecular Vision, 2015, 21, 749-66.	1.1	59
587	Stretch-activated channel Piezo1 is up-regulated in failure heart and cardiomyocyte stimulated by Angll. American Journal of Translational Research (discontinued), 2017, 9, 2945-2955.	0.0	31
589	Mechanosensing by Piezo1 and its implications for physiology and various pathologies. Biological Reviews, 2022, 97, 604-614.	4.7	42
591	Emerging Piezo1 signaling in inflammation and atherosclerosis; a potential therapeutic target. International Journal of Biological Sciences, 2022, 18, 923-941.	2.6	17
592	Piezo1 activation induces fibronectin reduction and PGF2α secretion via arachidonic acid cascade. Experimental Eye Research, 2022, 215, 108917.	1.2	10
593	Recycling of crude oil from oily wastewater via a novel hydrogel coalescer. Fuel, 2022, 313, 123040.	3.4	7
596	Piezo1 Channels as Force Sensors in Mechanical Force-Related Chronic Inflammation. Frontiers in Immunology, 2022, 13, 816149.	2.2	32
597	Microskeletal stiffness promotes aortic aneurysm by sustaining pathological vascular smooth muscle cell mechanosensation via Piezo1. Nature Communications, 2022, 13, 512.	5.8	21

#	Article	IF	CITATIONS
598	Mechanosensitive channel Piezo1 induces cell apoptosis in pancreatic cancer by ultrasound with microbubbles. IScience, 2022, 25, 103733.	1.9	16
599	Tethering Piezo channels to the actin cytoskeleton for mechanogating via the cadherin- \hat{l}^2 -catenin mechanotransduction complex. Cell Reports, 2022, 38, 110342.	2.9	89
600	Endothelial Cell Plasma Membrane Biomechanics Mediates Effects of Pro-Inflammatory Factors on Endothelial Mechanosensors: Vicious Circle Formation in Atherogenic Inflammation. Membranes, 2022, 12, 205.	1.4	5
601	The Polysite Pharmacology of TREK K2P Channels. Advances in Experimental Medicine and Biology, 2021, 1349, 51-65.	0.8	6
602	OUP accepted manuscript. European Journal of Orthodontics, 2022, , .	1.1	2
603	DIC/Oxyma Based Efficient Synthesis and Activity Evaluation of Spider Peptide Toxin GsMTx4. Chinese Journal of Organic Chemistry, 2022, 42, 498.	0.6	7
604	2021 Nobel Prize for mechanosensory transduction. Biophysical Reviews, 2022, 14, 15-20.	1.5	20
605	A century of exercise physiology: key concepts on coupling respiratory oxygen flow to muscle energy demand during exercise. European Journal of Applied Physiology, 2022, 122, 1317-1365.	1.2	20
606	Genome-Wide Analysis and Expression Profiles of Ethylene Signal Genes and Apetala2/Ethylene-Responsive Factors in Peanut (Arachis hypogaea L.). Frontiers in Plant Science, 2022, 13, 828482.	1.7	5
607	Drosophila as a Model to Study the Mechanism of Nociception. Frontiers in Physiology, 2022, 13, 854124.	1.3	12
609	Fluorescence-coupled micropipette aspiration assay to examine calcium mobilization caused by red blood cell mechanosensing. European Biophysics Journal, 2022, 51, 135-146.	1.2	9
611	Multiscale Mechanobiology in Brain Physiology and Diseases. Frontiers in Cell and Developmental Biology, 2022, 10, 823857.	1.8	22
612	Structure deformation and curvature sensing of PIEZO1 in lipid membranes. Nature, 2022, 604, 377-383.	13.7	92
613	A Piez-o the jigsaw: the Piezo1 channel in skin biology. Clinical and Experimental Dermatology, 2022, 47, 1036-1047.	0.6	10
615	Bioinspired Sialic Acid Regulated Ion Nanochannel. Advanced Materials Interfaces, 0, , 2200186.	1.9	1
616	On the Connections between TRPM Channels and SOCE. Cells, 2022, 11, 1190.	1.8	1
617	Piezo1 Is a Mechanosensor Channel in Central Nervous System Capillaries. Circulation Research, 2022, 130, 1531-1546.	2.0	48
618	Piezo1 activation attenuates thrombin-induced blebbing in breast cancer cells. Journal of Cell Science, 2022, 135, .	1.2	8

#	ARTICLE	IF	Citations
619	Global PIEZO1 Gain-of-Function Mutation Causes Cardiac Hypertrophy and Fibrosis in Mice. Cells, 2022, 11, 1199.	1.8	10
620	Fatty acids as biomodulators of Piezo1 mediated glial mechanosensitivity in Alzheimer's disease. Life Sciences, 2022, 297, 120470.	2.0	9
621	Role of Mechanoinsensitive Nociceptors in Painful Diabetic Peripheral Neuropathy. Current Diabetes Reviews, 2022, 18 , .	0.6	1
622	Profile of David Julius and Ardem Patapoutian: 2021 Nobel Laureates in Physiology or Medicine. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	7
623	HeLa at 70: on honouring the legacy of Henrietta Lacks. Biochemist, 2021, 43, 78-81.	0.2	0
624	Translating the force—mechano-sensing GPCRs. American Journal of Physiology - Cell Physiology, 2022, 322, C1047-C1060.	2.1	27
626	Mechanosensation by endothelial PIEZO1 is required for leukocyte diapedesis. Blood, 2022, 140, 171-183.	0.6	37
632	Foodborne compounds that alter plasma membrane architecture can modify the response of intestinal cells to shear stress in vitro. Toxicology and Applied Pharmacology, 2022, 446, 116034.	1.3	6
633	Piezo-Type Mechanosensitive Ion Channel Component 1 (Piezo1): A Promising Therapeutic Target and Its Modulators. Journal of Medicinal Chemistry, 2022, 65, 6441-6453.	2.9	28
635	Identification of Key Genes and Pathways Associated with PIEZO1 in Bone-Related Disease Based on Bioinformatics. International Journal of Molecular Sciences, 2022, 23, 5250.	1.8	2
636	The Role of Mechanically-Activated Ion Channels Piezo1, Piezo2, and TRPV4 in Chondrocyte Mechanotransduction and Mechano-Therapeutics for Osteoarthritis. Frontiers in Cell and Developmental Biology, 2022, 10, .	1.8	28
637	Generation of <scp><i>Piezo1â€CreER</i></scp> transgenic mice for visualization and lineage tracing of mechanical force responsive cells in vivo. Genesis, 2022, 60, e23476.	0.8	3
638	Förster Resonance Energy Transfer-Based Single-Cell Imaging Reveals Piezo1-Induced Ca2+ Flux Mediates Membrane Ruffling and Cell Survival. Frontiers in Cell and Developmental Biology, 2022, 10, .	1.8	1
639	Endogenous ion channels expressed in human embryonic kidney (HEK-293) cells. Pflugers Archiv European Journal of Physiology, 2022, 474, 665-680.	1.3	13
640	Physics of mechanotransduction by Piezo ion channels. Journal of General Physiology, 2022, 154, .	0.9	19
643	Analysis of the Transcriptional Dynamics of Regulatory Genes During Peanut Pod Development Caused by Darkness and Mechanical Stress. Frontiers in Plant Science, 2022, 13, .	1.7	3
644	The mechanosensitive ion channel PIEZO1 is expressed in tendons and regulates physical performance. Science Translational Medicine, 2022, 14, .	5.8	21
645	Microglial amyloid beta clearance is driven by PIEZO1 channels. Journal of Neuroinflammation, 2022, 19, .	3.1	45

#	ARTICLE	IF	CITATIONS
646	Characterization of <scp>microRNA</scp> and gene expression in the cochlea of an echolocating bat () Tj ETQq0	0.8gBT	/Overlock 10
647	Membrane Stretch Gates NMDA Receptors. Journal of Neuroscience, 2022, 42, 5672-5680.	1.7	8
648	Dendrites use mechanosensitive channels to proofread ligand-mediated neurite extension during morphogenesis. Developmental Cell, 2022, 57, 1615-1629.e3.	3.1	11
649	PIEZO1 transduces mechanical itch in mice. Nature, 2022, 607, 104-110.	13.7	69
650	Piezo1-Regulated Mechanotransduction Controls Flow-Activated Lymphatic Expansion. Circulation Research, 2022, 131, .	2.0	16
651	CAR T Cell Locomotion in Solid Tumor Microenvironment. Cells, 2022, 11, 1974.	1.8	15
652	Piezo channels in the urinary system. Experimental and Molecular Medicine, 2022, 54, 697-710.	3.2	17
653	Fluid Shear Stress Facilitates Prostate Cancer Metastasis Through Piezo1-Src-YAP Axis. SSRN Electronic Journal, 0, , .	0.4	0
656	The Piezo1 ion channel in glaucoma: a new perspective on mechanical stress. Human Cell, 2022, 35, 1307-1322.	1,2	5
657	Remotely Actuated Magnetic Nanocarpets for Bone Tissue Engineering: Nonâ€Invasive Modulation of Mechanosensitive Ion Channels for Enhanced Osteogenesis. Advanced Functional Materials, 2022, 32, .	7.8	8
658	Neck Pain: Do We Know Enough About the Sensorimotor Control System?. Frontiers in Computational Neuroscience, $0,16,.$	1.2	5
659	Yoda $1\hat{a}\in^{M}$ s energetic footprint on Piezo1 channels and its modulation by voltage and temperature. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	19
661	Mechanosensor Piezo1 mediates bimodal patterns of intracellular calcium and <scp>FAK</scp> signaling. EMBO Journal, 2022, 41, .	3.5	10
662	YAP1 controls degeneration of human cartilage chondrocytes in response to mechanical tension. Cell Biology International, 2022, 46, 1637-1648.	1.4	6
663	Molecular basis of somatosensation in insects. Current Opinion in Neurobiology, 2022, 76, 102592.	2.0	2
664	Lighting up Nobel Prize-winning studies with protein intrinsic disorder. Cellular and Molecular Life Sciences, 2022, 79, .	2.4	7
665	The force-from-lipid principle and its origin, a $\hat{a} \in \mathbb{C}^*$ is true for E. coli is true for the elephant $\hat{a} \in \mathbb{C}^*$ refrain. Journal of Neurogenetics, 2022, 36, 44-54.	0.6	11
667	The Mechanosensitive Ion Channel PIEZO1 in Intestinal Epithelial Cells Mediates Inflammation through the NOD-Like Receptor 3 Pathway in Crohn's Disease. Inflammatory Bowel Diseases, 2023, 29, 103-115.	0.9	6

#	Article	IF	CITATIONS
668	PIEZO channels and newcomers in the mammalian mechanosensitive ion channel family. Neuron, 2022, 110, 2713-2727.	3.8	22
669	New KCNN4 Variants Associated With Anemia: Stomatocytosis Without Erythrocyte Dehydration. Frontiers in Physiology, 0, 13, .	1.3	2
670	Glycine-bound NMDA receptors are stretch-activated. Trends in Neurosciences, 2022, 45, 794-795.	4.2	2
671	Tbx18 Orchestrates Cytostructural Transdifferentiation of Cardiomyocytes to Pacemaker Cells by Recruiting the Epithelial–Mesenchymal Transition Program. Journal of Proteome Research, 2022, 21, 2277-2292.	1.8	3
672	Molecular Markers of Mechanosensation in Glycinergic Neurons in the Avian Lumbosacral Spinal Cord. ENeuro, 2022, 9, ENEURO.0100-22.2022.	0.9	2
673	Astrocytic Piezo1-mediated mechanotransduction determines adult neurogenesis and cognitive functions. Neuron, 2022, 110, 2984-2999.e8.	3.8	46
674	Novel identification and modulation of the mechanosensitive Piezo1 channel in human myometrium. Journal of Physiology, $0, , .$	1.3	6
675	Infection-induced membrane ruffling initiates danger and immune signaling via the mechanosensor PIEZO1. Cell Reports, 2022, 40, 111173.	2.9	10
676	The role of mechanosensitive ion channels in the gastrointestinal tract. Frontiers in Physiology, 0, 13,	1.3	9
678	Two types of peptides derived from the neurotoxin GsMTx4 inhibit a mechanosensitive potassium channel by modifying the mechano-gate. Journal of Biological Chemistry, 2022, , 102326.	1.6	0
680	Cell Architecture-Dependent Constraints: Critical Safeguards to Carcinogenesis. International Journal of Molecular Sciences, 2022, 23, 8622.	1.8	1
681	Shear stress activates nociceptors to drive Drosophila mechanical nociception. Neuron, 2022, 110, 3727-3742.e8.	3.8	5
682	The interplay between physical cues and mechanosensitive ion channels in cancer metastasis. Frontiers in Cell and Developmental Biology, 0, 10 , .	1.8	6
683	Fluid shear stress facilitates prostate cancer metastasis through Piezo1-Src-YAP axis. Life Sciences, 2022, 308, 120936.	2.0	17
684	Quantification of mechanical stimuli inducing nucleoplasmic translocation of YAP and its distribution mechanism using an AFM–dSTORM coupled technique. Nanoscale, 2022, 14, 15516-15524.	2.8	2
685	Delayed Onset Muscle Soreness and Critical Neural Microdamage-Derived Neuroinflammation. Biomolecules, 2022, 12, 1207.	1.8	15
686	Missense mutations in <i>PIEZO1,</i> which encodes the Piezo1 mechanosensor protein, define Er red blood cell antigens. Blood, 2023, 141, 135-146.	0.6	12
687	lon channel Piezo 1 activation promotes aerobic glycolysis in macrophages. Frontiers in Immunology, $0,13,.$	2.2	19

#	Article	IF	CITATIONS
688	Two-dimensional capillaries assembled by van der Waals heterostructures. Nano Research, 2023, 16, 4119-4129.	5.8	6
689	Piezo1 in vascular remodeling of atherosclerosis and pulmonary arterial hypertension: A potential therapeutic target. Frontiers in Cardiovascular Medicine, 0, 9, .	1.1	4
690	Piezo buffers mechanical stress via modulation of intracellular Ca2+ handling in the Drosophila heart. Frontiers in Physiology, $0,13,13$	1.3	5
691	Calcium-Permeable Channels Cooperation for Rheumatoid Arthritis: Therapeutic Opportunities. Biomolecules, 2022, 12, 1383.	1.8	4
693	The Janus-faced role of Piezo1 in cardiovascular health under mechanical stimulation. Genes and Diseases, 2023, 10, 1956-1968.	1.5	2
695	Determination of oligomeric states of proteins via dual-color colocalization with single molecule localization microscopy. ELife, $0,11,.$	2.8	6
696	Senseurs mol \tilde{A} © culaires de la m \tilde{A} © canosensation : canaux PIEZOs et potentiels candidats. Douleur Et Analgesie, 2022, 35, 213-220.	0.2	0
697	Activation of Piezo1 Increases Na,K-ATPase-Mediated Ion Transport in Mouse Lens. International Journal of Molecular Sciences, 2022, 23, 12870.	1.8	5
698	The past and future of Piezo: A scientometric review. Medicine (United States), 2022, 101, e31210.	0.4	0
699	Psoriasis, Is It a Microdamage of Our "Sixth Sense� A Neurocentric View. International Journal of Molecular Sciences, 2022, 23, 11940.	1.8	8
700	Endothelial mechanosensing: A forgotten target to treat vascular remodeling in hypertension?. Biochemical Pharmacology, 2022, 206, 115290.	2.0	2
701	YAP Activation in Promoting Negative Durotaxis and Acral Melanoma Progression. Cells, 2022, 11, 3543.	1.8	2
702	Efficacy analysis of splint combined with platelet-rich plasma in the treatment of temporomandibular joint osteoarthritis. Frontiers in Pharmacology, $0, 13, \ldots$	1.6	3
703	Role of the mechanosensitive piezo1 channel in intervertebral disc degeneration. Clinical Physiology and Functional Imaging, 2023, 43, 59-70.	0.5	4
704	Arterial myogenic response and aging. Ageing Research Reviews, 2023, 84, 101813.	5.0	2
705	Bidirectional Transport Phenomenon of Ions in Electric Fields Due to the Cluster Formation in Two-Dimensional Graphene Channels. Journal of Physical Chemistry C, 2023, 127, 1167-1175.	1.5	3
706	Evidence of the static magnetic field effects on bone-related diseases and bone cells. Progress in Biophysics and Molecular Biology, 2023, 177, 168-180.	1.4	5
707	Membrane curvature governs the distribution of Piezo1 in live cells. Nature Communications, 2022, 13,	5.8	17

#	Article	IF	CITATIONS
708	Analysing Mechanically Evoked Currents at Cell-Substrate Junctions. Methods in Molecular Biology, 2023, , 155-167.	0.4	1
709	Mechanosensitive Enteric Neurons (MEN) at Work. Advances in Experimental Medicine and Biology, 2022, , 45-53.	0.8	O
710	Mechanosignals in abdominal aortic aneurysms. Frontiers in Cardiovascular Medicine, 0, 9, .	1.1	6
711	Proteome alterations in erythrocytes with PIEZO1 gain-of-function mutations. Blood Advances, 2023, 7, 2681-2693.	2.5	4
712	Vascular mechanotransduction. Physiological Reviews, 2023, 103, 1247-1421.	13.1	36
713	<i>PIEZO1</i> : now also featuring blood group antigens. Blood, 2023, 141, 123-124.	0.6	O
715	Piezo protein determines stem cell fate by transmitting mechanical signals. Human Cell, 2023, 36, 540-553.	1.2	5
716	Piezo mechanosensory channels regulate centrosome integrity and mitotic entry. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	1
717	PIEZO1-Related Physiological and Pathological Processes in CNS: Focus on the Gliomas. Cancers, 2023, 15, 883.	1.7	0
718	A single-molecule method for measuring fluorophore labeling yields for the study of membrane protein oligomerization in membranes. PLoS ONE, 2023, 18, e0280693.	1.1	2
719	Vascular and Neural Response to Focal Vibration, Sensory Feedback, and Piezo Ion Channel Signaling. , 2023, 2, 42-90.		0
720	"Force-From-Lipids―Dependence of the MscCG Mechanosensitive Channel Gating on Anionic Membranes. Microorganisms, 2023, 11, 194.	1.6	1
721	Microscopic mechanism of PIEZO1 activation by pressure-induced membrane stretch. Journal of General Physiology, 2023, 155, .	0.9	2
722	The role of PIEZO ion channels in the musculoskeletal system. American Journal of Physiology - Cell Physiology, 2023, 324, C728-C740.	2.1	8
723	Miswired Proprioception in Amyotrophic Lateral Sclerosis in Relation to Pain Sensation (and in) Tj ETQq0 0 0 rgBT / Proprioceptive Terminals Besides Being the Potential Primary Damage?. Life, 2023, 13, 657.	/Overlock 1.1	10 Tf 50 18 9
724	Mechanical Reprogramming of Macrophages: A Push for Vascularization. Arteriosclerosis, Thrombosis, and Vascular Biology, 2023, 43, 519-521.	1.1	O
725	Ionic Flexible Mechanical Sensors: Mechanisms, Structural Engineering, Applications, and Challenges. , 2023, 2, .		0
726	Peripheral focused ultrasound stimulation and its applications: From therapeutics to human–computer interaction. Frontiers in Neuroscience, 0, 17, .	1.4	1

#	Article	IF	CITATIONS
727	Fluid shear stress affects the metabolic and toxicological response of the rainbow trout gill cell line RTgill-W1. Toxicology in Vitro, 2023, 90, 105590.	1.1	0
728	Channel-mediated ATP release in the nervous system. Neuropharmacology, 2023, 227, 109435.	2.0	4
729	Intraluminal chloride regulates lung branching morphogenesis: involvement of PIEZO1/PIEZO2. Respiratory Research, 2023, 24, .	1.4	0
730	Functional maturation of kidney organoid tubules: PIEZO1-mediated Ca ²⁺ signaling. American Journal of Physiology - Cell Physiology, 2023, 324, C757-C768.	2.1	3
731	Piezo1 channel activation stimulates ATP production through enhancing mitochondrial respiration and glycolysis in vascular endothelial cells. British Journal of Pharmacology, 2023, 180, 1862-1877.	2.7	5
732	Polycystin Channel Complexes. Annual Review of Physiology, 2023, 85, 425-448.	5.6	7
733	The energetics of rapid cellular mechanotransduction. Proceedings of the National Academy of Sciences of the United States of America, 2023, 120, .	3.3	1
734	Matrix stiffness induces epithelial-to-mesenchymal transition via Piezo1-regulated calcium flux in prostate cancer cells. IScience, 2023, 26, 106275.	1.9	7
735	Optical control of PIEZO1 channels. Nature Communications, 2023, 14, .	5.8	7
736	Nociception in fruit fly larvae. Frontiers in Pain Research, 0, 4, .	0.9	1
738	Ion Channels in the Development and Remodeling of the Aortic Valve. International Journal of Molecular Sciences, 2023, 24, 5860.	1.8	1
739	Role of Lysosomal Cholesterol in Regulating PI(4,5)P2-Dependent Ion Channel Function. Advances in Experimental Medicine and Biology, 2023, , 193-215.	0.8	0
740	Exploration of Piezo Channels in Bread Wheat (Triticum aestivum L.). Agriculture (Switzerland), 2023, 13, 783.	1.4	6
741	The Role of the Piezo1 Mechanosensitive Channel in the Musculoskeletal System. International Journal of Molecular Sciences, 2023, 24, 6513.	1.8	2
742	LF Power of HRV Could Be the Piezo2 Activity Level in Baroreceptors with Some Piezo1 Residual Activity Contribution. International Journal of Molecular Sciences, 2023, 24, 7038.	1.8	2
743	Chinese herbal medicine for the treatment of cardiovascular diseases ─ targeting cardiac ion channels. Pharmacological Research, 2023, , 106765.	3.1	1
746	Molecular and Cellular Mechanisms of Neuropathic Pain in Aging. ACS Chemical Neuroscience, 2023, 14, 1701-1716.	1.7	0
759	Mechanisms of endothelial flow sensing. , 2023, 2, 517-529.		5

#	Article	IF	CITATIONS
771	Cellular mechanotransduction in health and diseases: from molecular mechanism to therapeutic targets. Signal Transduction and Targeted Therapy, 2023, 8, .	7.1	16
782	The emerging role of Piezo1 channels in skeletal muscle physiology. Biophysical Reviews, 2023, 15, 1171-1184.	1.5	1
808	Durotaxis and negative durotaxis: where should cells go?. Communications Biology, 2023, 6, .	2.0	0