Robert Fettiplace

List of Publications by Year
in descending order

50 papers	4,458 citations	126907 33 h-index	243625 44 g-index
51 all docs	51 docs citations	51 times ranked	2331 citing authors

#	Article	IF	Citations
1	Atypical tuning and amplification mechanisms in gecko auditory hair cells. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2122501119.	7.1	5
2	New Tmc1 Deafness Mutations Impact Mechanotransduction in Auditory Hair Cells. Journal of Neuroscience, 2021, 41, 4378-4391.	3.6	18
3	The speed of the hair cell mechanotransducer channel revealed by fluctuation analysis. Journal of General Physiology, 2021, 153, .	1.9	15
4	Diverse Mechanisms of Sound Frequency Discrimination in the Vertebrate Cochlea. Trends in Neurosciences, 2020, 43, 88-102.	8.6	34
5	The contribution of TMC1 to adaptation of mechanoelectrical transduction channels in cochlear outer hair cells. Journal of Physiology, 2019, 597, 5949-5961.	2.9	16
6	A <i>Tmc1</i> mutation reduces calcium permeability and expression of mechanoelectrical transduction channels in cochlear hair cells. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20743-20749.	7.1	34
7	Tonotopy in calcium homeostasis and vulnerability of cochlear hair cells. Hearing Research, 2019, 376, 11-21.	2.0	66
8	Variable number of TMC1-dependent mechanotransducer channels underlie tonotopic conductance gradients in the cochlea. Nature Communications, 2018, 9, 2185.	12.8	73
9	PIEZO2 as the anomalous mechanotransducer channel in auditory hair cells. Journal of Physiology, 2017, 595, 7039-7048.	2.9	21
10	Hair Cell Transduction, Tuning, and Synaptic Transmission in the Mammalian Cochlea. , 2017, 7, 1197-1227.		230
11	CIB2 interacts with TMC1 and TMC2 and is essential for mechanotransduction in auditory hair cells. Nature Communications, 2017, 8, 43.	12.8	121
12	Mechanosensory hair cells express two molecularly distinct mechanotransduction channels. Nature Neuroscience, 2017, 20, 24-33.	14.8	106
13	Spatiotemporal changes in the distribution of LHFPL5 in mice cochlear hair bundles during development and in the absence of PCDH15. PLoS ONE, 2017, 12, e0185285.	2.5	25
14	Development and localization of reverse-polarity mechanotransducer channels in cochlear hair cells. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6767-6772.	7.1	31
15	Is TMC1 the Hair Cell Mechanotransducer Channel?. Biophysical Journal, 2016, 111, 3-9.	0.5	47
16	Evaluation of Nestin Expression in the Developing and Adult Mouse Inner Ear. Stem Cells and Development, 2016, 25, 1419-1432.	2.1	14
17	The effects of <i>Tmc1 Beethoven</i> mutation on mechanotransducer channel function in cochlear hair cells. Journal of General Physiology, 2015, 146, 233-243.	1.9	55
18	Subunit determination of the conductance of hair-cell mechanotransducer channels. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1589-1594.	7.1	141

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19	Conductance and block of hair-cell mechanotransducer channels in transmembrane channelâ€"like protein mutants. Journal of General Physiology, 2014, 144, 55-69.	1.9	69
20	The Physiology of Mechanoelectrical Transduction Channels in Hearing. Physiological Reviews, 2014, 94, 951-986.	28.8	250
21	A Prestin Motor in Chicken Auditory Hair Cells: Active Force Generation in a Nonmammalian Species. Neuron, 2013, 79, 69-81.	8.1	63
22	The role of transmembrane channelâ€"like proteins in the operation of hair cell mechanotransducer channels. Journal of General Physiology, 2013, 142, 493-505.	1.9	83
23	Developmental changes in the cochlear hair cell mechanotransducer channel and their regulation by transmembrane channelâ€"like proteins. Journal of General Physiology, 2013, 141, 141-148.	1.9	93
24	Electrical tuning and transduction in short hair cells of the chicken auditory papilla. Journal of Neurophysiology, 2013, 109, 2007-2020.	1.8	27
25	The Resting Transducer Current Drives Spontaneous Activity in Prehearing Mammalian Cochlear Inner Hair Cells. Journal of Neuroscience, 2012, 32, 10479-10483.	3.6	66
26	The development, distribution and density of the plasma membrane calcium ATPase 2 calcium pump in rat cochlear hair cells. European Journal of Neuroscience, 2012, 36, 2302-2310.	2.6	44
27	Optimal Electrical Properties of Outer Hair Cells Ensure Cochlear Amplification. PLoS ONE, 2012, 7, e50572.	2.5	40
28	Prestin-Driven Cochlear Amplification Is Not Limited by the Outer Hair Cell Membrane Time Constant. Neuron, 2011, 70, 1143-1154.	8.1	241
29	A Cochlear Partition Model Incorporating Realistic Electrical and Mechanical Parameters for Outer Hair Cells. , 2011, , .		3
30	The ultrastructural distribution of prestin in outer hair cells: a postâ€embedding immunogold investigation of lowâ€frequency and highâ€frequency regions of the rat cochlea. European Journal of Neuroscience, 2010, 31, 1595-1605.	2.6	44
31	Force Transmission in the Organ of Corti Micromachine. Biophysical Journal, 2010, 98, 2813-2821.	0.5	48
32	Calcium Balance and Mechanotransduction in Rat Cochlear Hair Cells. Journal of Neurophysiology, 2010, 104, 18-34.	1.8	93
33	MEASUREMENT OF OUTER HAIR CELL ELECTROMOTILITY USING A FAST VOLTAGE CLAMP. , 2009, , .		0
34	Defining features of the hair cell mechanoelectrical transducer channel. Pflugers Archiv European Journal of Physiology, 2009, 458, 1115-1123.	2.8	52
35	Localization of inner hair cell mechanotransducer channels using high-speed calcium imaging. Nature Neuroscience, 2009, 12, 553-558.	14.8	387
36	PRESTIN DISTRIBUTION IN RAT OUTER CELLS â€" AN ULTRASTRUCTURAL STUDY. , 2009, , .		0

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37	The Actions of Calcium on Hair Bundle Mechanics in Mammalian Cochlear Hair Cells. Biophysical Journal, 2008, 94, 2639-2653.	0.5	90
38	Theoretical Conditions for High-Frequency Hair Bundle Oscillations in Auditory Hair Cells. Biophysical Journal, 2008, 95, 4948-4962.	0.5	38
39	Mechanoelectrical Transduction in Auditory Hair Cells. , 2006, , 154-203.		20
40	The sensory and motor roles of auditory hair cells. Nature Reviews Neuroscience, 2006, 7, 19-29.	10.2	357
41	Depolarization of Cochlear Outer Hair Cells Evokes Active Hair Bundle Motion by Two Mechanisms. Journal of Neuroscience, 2006, 26, 2757-2766.	3.6	82
42	A Large-Conductance Calcium-Selective Mechanotransducer Channel in Mammalian Cochlear Hair Cells. Journal of Neuroscience, 2006, 26, 10992-11000.	3.6	157
43	Transduction Channels in Hair Cells. , 2005, , 31-56.		1
44	The Concentrations of Calcium Buffering Proteins in Mammalian Cochlear Hair Cells. Journal of Neuroscience, 2005, 25, 7867-7875.	3.6	183
45	The Transduction Channel Filter in Auditory Hair Cells. Journal of Neuroscience, 2005, 25, 7831-7839.	3.6	145
46	Adaptation in auditory hair cells. Current Opinion in Neurobiology, 2003, 13, 446-451.	4.2	106
47	Fast adaptation of mechanoelectrical transducer channels in mammalian cochlear hair cells. Nature Neuroscience, 2003, 6, 832-836.	14.8	224
48	Tonotopic Variation in the Conductance of the Hair Cell Mechanotransducer Channel. Neuron, 2003, 40, 983-990.	8.1	184
49	The Distribution of Calcium Buffering Proteins in the Turtle Cochlea. Journal of Neuroscience, 2003, 23, 4577-4589.	3.6	56
50	Confocal imaging of calcium microdomains and calcium extrusion in turtle hair cells. Neuron, 1995, 15, 1323-1335.	8.1	160