Walter Marcotti

List of Publications by Year in Descending Order

67 papers	3,695 citations	35 h-index	60 g-index
72 ext. papers	4,340 ext. citations	7.5 avg, IF	5.27 L-index

#	Paper	IF	Citations
67	Neuroplastin genetically interacts with Cadherin 23 and the encoded isoform Np55 is sufficient for cochlear hair cell function and hearing.. *PLoS Genetics*, **2022**, 18, e1009937	6	
66	Grxcr1 regulates hair bundle morphogenesis and is required for normal mechanoelectrical transduction in mouse cochlear hair cells.. *PLoS ONE*, **2022**, 17, e0261530	3.7	0
65	MET currents and otoacoustic emissions from mice with a detached tectorial membrane indicate the extracellular matrix regulates Ca near stereocilia. *Journal of Physiology*, **2021**, 599, 2015-2036	3.9	6
64	Functional development and regeneration of hair cells in the zebrafish lateral line. *Journal of Physiology*, **2021**, 599, 3913-3936	3.9	2
63	Sensory adaptation at ribbon synapses in the zebrafish lateral line. *Journal of Physiology*, **2021**, 599, 3677-3696	3.9	0
62	Biophysical and morphological changes in inner hair cells and their efferent innervation in the ageing mouse cochlea. *Journal of Physiology*, **2021**, 599, 269-287	3.9	10
61	Loss of Baiap2l2 destabilizes the transducing stereocilia of cochlear hair cells and leads to deafness. *Journal of Physiology*, **2021**, 599, 1173-1198	3.9	13
60	Current Response in Ca 1.3 Mouse Vestibular and Cochlear Hair Cells.. *Frontiers in Neuroscience*, **2021**, 15, 749483	5.1	2
59	Generation of Otic Lineages from Integration-Free Human-Induced Pluripotent Stem Cells Reprogrammed by mRNAs. *Stem Cells International*, **2020**, 2020, 3692937	5	7
58	Age-related changes in the biophysical and morphological characteristics of mouse cochlear outer hair cells. *Journal of Physiology*, **2020**, 598, 3891-3910	3.9	16
57	Hair cell maturation is differentially regulated along the tonotopic axis of the mammalian cochlea. *Journal of Physiology*, **2020**, 598, 151-170	3.9	21
56	Synaptojanin2 Mutation Causes Progressive High-frequency Hearing Loss in Mice. *Frontiers in Cellular Neuroscience*, **2020**, 14, 561857	6.1	2
55	Exocytosis in mouse vestibular Type II hair cells shows a high-order Ca dependence that is independent of synaptotagmin-4. *Physiological Reports*, **2020**, 8, e14509	2.6	3
54	Pathophysiological changes in inner hair cell ribbon synapses in the ageing mammalian cochlea. *Journal of Physiology*, **2020**, 598, 4339-4355	3.9	11
53	Gata3 is required for the functional maturation of inner hair cells and their innervation in the mouse cochlea. *Journal of Physiology*, **2019**, 597, 3389-3406	3.9	11
52	Coordinated calcium signalling in cochlear sensory and non-sensory cells refines afferent innervation of outer hair cells. *EMBO Journal*, **2019**, 38,	13	32
51	Clarin-2 is essential for hearing by maintaining stereocilia integrity and function. *EMBO Molecular Medicine*, **2019**, 11, e10288	12	11

50	Hair Cell Afferent Synapses: Function and Dysfunction. *Cold Spring Harbor Perspectives in Medicine*, **2019**, 9,	5.4	10
49	Helios is a key transcriptional regulator of outer hair cell maturation. *Nature*, **2018**, 563, 696-700	50.4	47
48	Mechanotransduction is required for establishing and maintaining mature inner hair cells and regulating efferent innervation. *Nature Communications*, **2018**, 9, 4015	17.4	37
47	Connexin-Mediated Signaling in Nonsensory Cells Is Crucial for the Development of Sensory Inner Hair Cells in the Mouse Cochlea. *Journal of Neuroscience*, **2017**, 37, 258-268	6.6	2
46	The Coupling between Ca Channels and the Exocytotic Ca Sensor at Hair Cell Ribbon Synapses Varies Tonotopically along the Mature Cochlea. *Journal of Neuroscience*, **2017**, 37, 2471-2484	6.6	39
45	Enlargement of Ribbons in Zebrafish Hair Cells Increases Calcium Currents But Disrupts Afferent Spontaneous Activity and Timing of Stimulus Onset. *Journal of Neuroscience*, **2017**, 37, 6299-6313	6.6	31
44	Connexin-Mediated Signaling in Nonsensory Cells Is Crucial for the Development of Sensory Inner Hair Cells in the Mouse Cochlea. *Journal of Neuroscience*, **2017**, 37, 258-268	6.6	44
43	TMC2 Modifies Permeation Properties of the Mechanoelectrical Transducer Channel in Early Postnatal Mouse Cochlear Outer Hair Cells. *Frontiers in Molecular Neuroscience*, **2017**, 10, 326	6.1	17
42	An allosteric gating model recapitulates the biophysical properties of I expressed in mouse vestibular type I hair cells. *Journal of Physiology*, **2017**, 595, 6735-6750	3.9	6
41	Integration of Tmc1/2 into the mechanotransduction complex in zebrafish hair cells is regulated by Transmembrane O-methyltransferase (Tomt). *ELife*, **2017**, 6,	8.9	35
40	In vivo physiological recording from the lateral line of juvenile zebrafish. *Journal of Physiology*, **2016** , 594, 5427-38	3.9	17
39	Tmc1 Point Mutation Affects Ca2+ Sensitivity and Block by Dihydrostreptomycin of the Mechanoelectrical Transducer Current of Mouse Outer Hair Cells. *Journal of Neuroscience*, **2016**, 36, 336-49	6.6	50
38	The acquisition of mechano-electrical transducer current adaptation in auditory hair cells requires myosin VI. *Journal of Physiology*, **2016**, 594, 3667-81	3.9	23
37	Absence of Neuroplastin-65 Affects Synaptogenesis in Mouse Inner Hair Cells and Causes Profound Hearing Loss. *Journal of Neuroscience*, **2016**, 36, 222-34	6.6	20
36	Distinct roles of Eps8 in the maturation of cochlear and vestibular hair cells. *Neuroscience*, **2016**, 328, 80-91	3.9	6
35	Functional Development of Hair Cells in the Mammalian Inner Ear **2014**, 155-188		10
34	Transduction without tip links in cochlear hair cells is mediated by ion channels with permeation properties distinct from those of the mechano-electrical transducer channel. *Journal of Neuroscience*, **2014**, 34, 5505-14	6.6	42
33	In vivo and in vitro biophysical properties of hair cells from the lateral line and inner ear of developing and adult zebrafish. *Journal of Physiology*, **2014**, 592, 2041-58	3.9	41

32	Calcium entry into stereocilia drives adaptation of the mechanoelectrical transducer current of mammalian cochlear hair cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 14918-23	11.5	81
31	The actin-binding proteins eps8 and gelsolin have complementary roles in regulating the growth and stability of mechanosensory hair bundles of mammalian cochlear outer hair cells. *PLoS ONE*, **2014**, 9, e87331	3.7	13
30	Burst activity and ultrafast activation kinetics of CaV1.3 Ca□+ channels support presynaptic activity in adult gerbil hair cell ribbon synapses. *Journal of Physiology*, **2013**, 591, 3811-20	3.9	45
29	Progressive hearing loss and gradual deterioration of sensory hair bundles in the ears of mice lacking the actin-binding protein Eps8L2. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 13898-903	11.5	47
28	Presynaptic maturation in auditory hair cells requires a critical period of sensory-independent spiking activity. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 8720-5	11.5	58
27	Cholinergic efferent synaptic transmission regulates the maturation of auditory hair cell ribbon synapses. *Open Biology*, **2013**, 3, 130163	7	41
26	Restoration of auditory evoked responses by human ES-cell-derived otic progenitors. *Nature*, **2012**, 490, 278-82	50.4	259
25	Functional assembly of mammalian cochlear hair cells. *Experimental Physiology*, **2012**, 97, 438-51	2.4	35
24	The resting transducer current drives spontaneous activity in prehearing mammalian cochlear inner hair cells. *Journal of Neuroscience*, **2012**, 32, 10479-83	6.6	51
23	Lack of brain-derived neurotrophic factor hampers inner hair cell synapse physiology, but protects against noise-induced hearing loss. *Journal of Neuroscience*, **2012**, 32, 8545-53	6.6	60
22	Prestin-driven cochlear amplification is not limited by the outer hair cell membrane time constant. *Neuron*, **2011**, 70, 1143-54	13.9	198
21	Eps8 regulates hair bundle length and functional maturation of mammalian auditory hair cells. *PLoS Biology*, **2011**, 9, e1001048	9.7	80
20	Position-dependent patterning of spontaneous action potentials in immature cochlear inner hair cells. *Nature Neuroscience*, **2011**, 14, 711-7	25.5	120
19	Mutations in protocadherin 15 and cadherin 23 affect tip links and mechanotransduction in mammalian sensory hair cells. *PLoS ONE*, **2011**, 6, e19183	3.7	102
18	Elementary properties of CaV1.3 Ca(2+) channels expressed in mouse cochlear inner hair cells. *Journal of Physiology*, **2010**, 588, 187-99	3.9	93
17	Synaptotagmin IV determines the linear Ca2+ dependence of vesicle fusion at auditory ribbon synapses. *Nature Neuroscience*, **2010**, 13, 45-52	25.5	94
16	Human fetal auditory stem cells can be expanded in vitro and differentiate into functional auditory neurons and hair cell-like cells. *Stem Cells*, **2009**, 27, 1196-204	5.8	62
15	Functional maturation of the exocytotic machinery at gerbil hair cell ribbon synapses. *Journal of Physiology*, **2009**, 587, 1715-26	3.9	43

14	Biophysical properties of CaV1.3 calcium channels in gerbil inner hair cells. *Journal of Physiology*, **2008**, 586, 1029-42	3.9	68
13	Tonotopic variation in the calcium dependence of neurotransmitter release and vesicle pool replenishment at mammalian auditory ribbon synapses. *Journal of Neuroscience*, **2008**, 28, 7670-8	6.6	95
12	Genetic deletion of SK2 channels in mouse inner hair cells prevents the developmental linearization in the Ca2+ dependence of exocytosis. *Journal of Physiology*, **2007**, 583, 631-46	3.9	42
11	Tmc1 is necessary for normal functional maturation and survival of inner and outer hair cells in the mouse cochlea. *Journal of Physiology*, **2006**, 574, 677-98	3.9	89
10	Increase in efficiency and reduction in Ca2+ dependence of exocytosis during development of mouse inner hair cells. *Journal of Physiology*, **2005**, 563, 177-91	3.9	148
9	The aminoglycoside antibiotic dihydrostreptomycin rapidly enters mouse outer hair cells through the mechano-electrical transducer channels. *Journal of Physiology*, **2005**, 567, 505-21	3.9	265
8	Development and properties of stereociliary link types in hair cells of the mouse cochlea. *Journal of Comparative Neurology*, **2005**, 485, 75-85	3.4	169
7	Effects of intracellular stores and extracellular Ca(2+) on Ca(2+)-activated K(+) currents in mature mouse inner hair cells. *Journal of Physiology*, **2004**, 557, 613-33	3.9	81
6	A transiently expressed SK current sustains and modulates action potential activity in immature mouse inner hair cells. *Journal of Physiology*, **2004**, 560, 691-708	3.9	102
5	Sodium and calcium currents shape action potentials in immature mouse inner hair cells. *Journal of Physiology*, **2003**, 552, 743-61	3.9	150
4	Developmental changes in the expression of potassium currents of embryonic, neonatal and mature mouse inner hair cells. *Journal of Physiology*, **2003**, 548, 383-400	3.9	207
3	Developmental expression of the potassium current IK,n contributes to maturation of mouse outer hair cells. *Journal of Physiology*, **1999**, 520 Pt 3, 653-60	3.9	170
2	Spontaneous and coordinated Ca2+ activity of cochlear sensory and non-sensory cells drives the maturation of OHC afferent innervation		2
1	Hair Cells1-9		