David Z Z He

List of Publications by Year
in descending order

81 papers	5,697 citations	117571 34 h-index	79644 73 g-index
85 all docs	85 docs citations	85 times ranked	3011 citing authors

#	Article	IF	Citations
1	Prestin is the motor protein of cochlear outer hair cells. Nature, 2000, 405, 149-155.	13.7	1,166
2	Prestin is required for electromotility of the outer hair cell and for the cochlear amplifier. Nature, 2002, 419, 300-304.	13.7	809
3	Intracellular Anions as the Voltage Sensor of Prestin, the Outer Hair Cell Motor Protein. Science, 2001, 292, 2340-2343.	6.0	415
4	Prestin-Based Outer Hair Cell Motility Is Necessary for Mammalian Cochlear Amplification. Neuron, 2008, 58, 333-339.	3.8	333
5	Acetylcholine, Outer Hair Cell Electromotility, and the Cochlear Amplifier. Journal of Neuroscience, 1997, 17, 2212-2226.	1.7	209
6	Characterization of Transcriptomes of Cochlear Inner and Outer Hair Cells. Journal of Neuroscience, 2014, 34, 11085-11095.	1.7	209
7	First appearance and development of electromotility in neonatal gerbil outer hair cells. Hearing Research, 1994, 78, 77-90.	0.9	146
8	Insights into the Biology of Hearing and Deafness Revealed by Single-Cell RNA Sequencing. Cell Reports, 2019, 26, 3160-3171.e3.	2.9	137
9	Mechanoelectrical transduction of adult outer hair cells studied in a gerbil hemicochlea. Nature, 2004, 429, 766-770.	13.7	126
10	Somatic stiffness of cochlear outer hair cells is voltage-dependent. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 8223-8228.	3.3	116
11	Cell-Specific Transcriptome Analysis Shows That Adult Pillar and Deiters' Cells Express Genes Encoding Machinery for Specializations of Cochlear Hair Cells. Frontiers in Molecular Neuroscience, 2018, 11, 356.	1.4	102
12	Transcriptomes of cochlear inner and outer hair cells from adult mice. Scientific Data, 2018, 5, 180199.	2.4	101
13	Motility-associated hair-bundle motion in mammalian outer hair cells. Nature Neuroscience, 2005, 8, 1028-1034.	7.1	82
14	Identifying MicroRNAs Involved in Degeneration of the Organ of Corti during Age-Related Hearing Loss. PLoS ONE, 2013, 8, e62786.	1.1	82
15	Regeneration of Stereocilia of Hair Cells by Forced Atoh1 Expression in the Adult Mammalian Cochlea. PLoS ONE, 2012, 7, e46355.	1.1	82
16	Prestin and the Dynamic Stiffness of Cochlear Outer Hair Cells. Journal of Neuroscience, 2003, 23, 9089-9096.	1.7	79
17	Organ of Corti and Stria Vascularis: Is there an Interdependence for Survival?. PLoS ONE, 2016, 11, e0168953.	1.1	75
18	Molecular Epidemiology and Functional Assessment of Novel Allelic Variants of SLC26A4 in Non-Syndromic Hearing Loss Patients with Enlarged Vestibular Aqueduct in China. PLoS ONE, 2012, 7, e49984.	1.1	64

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19	Mechanoelectric Transduction of Adult Inner Hair Cells. Journal of Neuroscience, 2007, 27, 1006-1014.	1.7	61
20	Effect of acetylcholine and GABA on the transfer function of electromotility in isolated outer hair cells. Hearing Research, 1996, 95, 87-99.	0.9	56
21	RNA-seq transcriptomic analysis of adult zebrafish inner ear hair cells. Scientific Data, 2018, 5, 180005.	2.4	51
22	Properties of Voltage-Dependent Somatic Stiffness of Cochlear Outer Hair Cells. JARO - Journal of the Association for Research in Otolaryngology, 2000, 1, 64-81.	0.9	50
23	Prestin at year 14: Progress and prospect. Hearing Research, 2014, 311, 25-35.	0.9	50
24	Chick hair cells do not exhibit voltageâ€dependent somatic motility. Journal of Physiology, 2003, 546, 511-520.	1.3	49
25	From Zebrafish to Mammal: Functional Evolution of Prestin, the Motor Protein of Cochlear Outer Hair Cells. Journal of Neurophysiology, 2011, 105, 36-44.	0.9	48
26	Isolation of cochlear inner hair cells. Hearing Research, 2000, 145, 156-160.	0.9	46
27	Fate of Mammalian Cochlear Hair Cells and Stereocilia after Loss of the Stereocilia. Journal of Neuroscience, 2009, 29, 15277-15285.	1.7	46
28	Tuning in to the Amazing Outer Hair Cell: Membrane Wizardry with a Twist and Shout. Journal of Membrane Biology, 2006, 209, 119-134.	1.0	44
29	Voltage-sensitive prestin orthologue expressed in zebrafish hair cells. Journal of Physiology, 2007, 580, 451-461.	1.3	41
30	Relationship between the Development of Outer Hair Cell Electromotility and Efferent Innervation: A Study in Cultured Organ of Corti of Neonatal Gerbils. Journal of Neuroscience, 1997, 17, 3634-3643.	1.7	40
31	Prestin forms oligomer with four mechanically independent subunits. Brain Research, 2010, 1333, 28-35.	1.1	39
32	Prestin-based outer hair cell electromotility in knockin mice does not appear to adjust the operating point of a cilia-based amplifier. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 12542-12547.	3.3	38
33	Development of Acetylcholine-Induced Responses in Neonatal Gerbil Outer Hair Cells. Journal of Neurophysiology, 1999, 81, 1162-1170.	0.9	36
34	Apoptosis in inner ear sensory hair cells. Journal of Otology, 2017, 12, 151-164.	0.4	36
35	Changes in plasma membrane structure and electromotile properties in prestin deficient outer hair cells. Cytoskeleton, 2010, 67, 43-55.	1.0	34
36	Molecular and cytological profiling of biological aging of mouse cochlear inner and outer hair cells. Cell Reports, 2022, 39, 110665.	2.9	34

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37	BRAF inhibition protects against hearing loss in mice. Science Advances, 2020, 6, .	4.7	31
38	Development of the Gerbil Inner Ear Observed in the Hemicochlea. JARO - Journal of the Association for Research in Otolaryngology, 2000, 1, 195-210.	0.9	30
39	Cyclic GMP and outer hair cell electromotility. Hearing Research, 1999, 137, 29-42.	0.9	29
40	ZBTB20 regulates nociception and pain sensation by modulating TRP channel expression in nociceptive sensory neurons. Nature Communications, 2014, 5, 4984.	5.8	26
41	Chondrocyteâ€specific <i>Smad4</i> gene conditional knockout results in hearing loss and inner ear malformation in mice. Developmental Dynamics, 2009, 238, 1897-1908.	0.8	22
42	Expression and Function of a Novel Variant of Estrogen Receptorâ€"Î±36 in Murine Airways. American Journal of Respiratory Cell and Molecular Biology, 2011, 45, 1084-1089.	1.4	22
43	Lizard and Frog Prestin: Evolutionary Insight into Functional Changes. PLoS ONE, 2013, 8, e54388.	1.1	21
44	Engineered Pendrin Protein, an Anion Transporter and Molecular Motor. Journal of Biological Chemistry, 2011, 286, 31014-31021.	1.6	20
45	Transcription Factors Expressed in Mouse Cochlear Inner and Outer Hair Cells. PLoS ONE, 2016, 11, e0151291.	1.1	20
46	Development of acetylcholine receptors in cultured outer hair cells. Hearing Research, 2001, 162, 113-125.	0.9	19
47	Intracellular calcium and outer hair cell electromotility. Brain Research, 2001, 922, 65-70.	1.1	19
48	Regulation of hippocampusâ€dependent memory by the zinc finger protein Zbtb20 in mature CA1 neurons. Journal of Physiology, 2012, 590, 4917-4932.	1.3	19
49	A motif of eleven amino acids is a structural adaptation that facilitates motor capability of eutherian prestin. Journal of Cell Science, 2012, 125, 1039-1047.	1.2	18
50	Expression of potassium channels in gerbil outer hair cells during development does not require neural induction. Developmental Brain Research, 1997, 103, 95-97.	2.1	17
51	How Well Can Centenarians Hear?. PLoS ONE, 2013, 8, e65565.	1.1	16
52	Identifying MicroRNAs Involved in Aging of the Lateral Wall of the Cochlear Duct. PLoS ONE, 2014, 9, e112857.	1.1	16
53	Characterization of Hair Cell-Like Cells Converted From Supporting Cells After Notch Inhibition in Cultures of the Organ of Corti From Neonatal Gerbils. Frontiers in Cellular Neuroscience, 2018, 12, 73.	1.8	15
54	Type I hair cell regeneration induced byMath1gene transfer following neomycin ototoxicity in rat vestibular sensory epithelium. Acta Oto-Laryngologica, 2012, 132, 1-10.	0.3	14

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55	Quinoxaline protects zebrafish lateral line hair cells from cisplatin and aminoglycosides damage. Scientific Reports, 2018, 8, 15119.	1.6	14
56	Endolymphatic Potential Measured From Developing and Adult Mouse Inner Ear. Frontiers in Cellular Neuroscience, 2020, 14, 584928.	1.8	14
57	Glucose transporter 5 is undetectable in outer hair cells and does not contribute to cochlear amplification. Brain Research, 2008, 1210, 20-28.	1.1	13
58	Interaction with ectopic cochlear crista sensory epithelium disrupts basal cochlear sensory epithelium development in Lmx1a mutant mice. Cell and Tissue Research, 2020, 380, 435-448.	1.5	13
59	Mouse outer hair cells lacking the Î±9 ACh receptor are motile. Developmental Brain Research, 2004, 148, 19-25.	2.1	12
60	Expression of Protein-Coding Gene Orthologs in Zebrafish and Mouse Inner Ear Non-sensory Supporting Cells. Frontiers in Neuroscience, 2019, 13, 1117.	1.4	12
61	The morphological and functional development of the stria vascularis in miniature pigs. Reproduction, Fertility and Development, 2017, 29, 585.	0.1	11
62	Smad5 haploinsufficiency leads to hair cell and hearing loss. Developmental Neurobiology, 2009, 69, 153-161.	1.5	10
63	Deletion of C1ql1 Causes Hearing Loss and Abnormal Auditory Nerve Fibers in the Mouse Cochlea. Frontiers in Cellular Neuroscience, 2021, 15, 713651.	1.8	10
64	Glutamate Transporter Homolog-based Model Predicts That Anion-Ï€ Interaction Is the Mechanism for the Voltage-dependent Response of Prestin. Journal of Biological Chemistry, 2015, 290, 24326-24339.	1.6	9
65	Identification of Differentially Expressed cDNA Clones from Gerbil Cochlear Outer Hair Cells. Audiology and Neuro-Otology, 2002, 7, 277-288.	0.6	8
66	Thyroid hormone is not necessary for the development of outer hair cell electromotility. Hearing Research, 2003, 175, 183-189.	0.9	8
67	Transcription co-factor LBH is necessary for the survival of cochlear hair cells. Journal of Cell Science, 2021, 134, .	1.2	8
68	Morphology and Ciliary Motion of Mucosa in the Eustachian Tube of Neonatal and Adult Gerbils. PLoS ONE, 2014, 9, e99840.	1.1	7
69	Mutation of SLC7A14 causes auditory neuropathy and retinitis pigmentosa mediated by lysosomal dysfunction. Science Advances, 2022, 8, eabk0942.	4.7	7
70	Mutation-induced reinforcement of prestin-expressing cells. Biochemical and Biophysical Research Communications, 2009, 389, 569-574.	1.0	6
71	Characterization of quinoxaline derivatives for protection against iatrogenically induced hearing loss. JCI Insight, 2021, 6, .	2.3	6
72	Streptomycin and gentamicin have no immediate effect on outer hair cell electromotility. Hearing Research, 2007, 234, 52-58.	0.9	5

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73	Deletion of Kncn Does Not Affect Kinocilium and Stereocilia Bundle Morphogenesis and Mechanotransduction in Cochlear Hair Cells. Frontiers in Molecular Neuroscience, 2018, 11, 326.	1.4	4
74	SCN11A gene deletion causes sensorineural hearing loss by impairing the ribbon synapses and auditory nerves. BMC Neuroscience, 2021, 22, 18.	0.8	4
75	Genetics of Mechanoreceptor Evolution and Development. , 2008, , 75-105.		2
76	The role of Smad4 in vestibular development in mice. International Journal of Developmental Neuroscience, 2011, 29, 15-23.	0.7	2
77	MODEL OF OUTER HAIR CELL STIFFNESS AND MOTILITY CHANGE. , 2000, , .		2
78	A Novel, Simple Organotypic Culture Method to Study the Organ of Corti from the Neonatal Gerbil. Orl, 1997, 59, 243-247.	0.6	1
79	THE COCHLEAR AMPLIFIER: IS IT HAIR BUNDLE MOTION OF OUTER HAIR CELLS?. , 2006, , .		1
80	Editorial: Hearing Loss and Cognitive Disorders. Frontiers in Neuroscience, 2022, 16, .	1.4	1
81	Corrigendum to â€œThe role of Smad4 in vestibular development in miceâ€•[Int. J. Dev. Neurosci. 29 (2011) 15â€"23]. International Journal of Developmental Neuroscience, 2011, 29, 783-783.	0.7	0