

Philine Wangemann

List of Publications by Year in descending order

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90
papers

5,914
citations

94381

37
h-index

74108

75
g-index

92
all docs

92
docs citations

92
times ranked

3477
citing authors

#	ARTICLE	IF	CITATIONS
1	K ⁺ cycling and the endocochlear potential. <i>Hearing Research</i> , 2002, 165, 1-9.	0.9	409
2	Targeted Ablation of Connexin26 in the Inner Ear Epithelial Gap Junction Network Causes Hearing Impairment and Cell Death. <i>Current Biology</i> , 2002, 12, 1106-1111.	1.8	409
3	Supporting sensory transduction: cochlear fluid homeostasis and the endocochlear potential. <i>Journal of Physiology</i> , 2006, 576, 11-21.	1.3	401
4	Inner Ear Defects Induced by Null Mutation of the <i>isk</i> Gene. <i>Neuron</i> , 1996, 17, 1251-1264.	3.8	380
5	KCNJ10 (Kir4.1) potassium channel knockout abolishes endocochlear potential. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 282, C403-C407.	2.1	305
6	Loss of KCNJ10 protein expression abolishes endocochlear potential and causes deafness in Pendred syndrome mouse model. <i>BMC Medicine</i> , 2004, 2, 30.	2.3	241
7	Ion transport mechanisms responsible for K ⁺ secretion and the transepithelial voltage across marginal cells of stria vascularis in vitro. <i>Hearing Research</i> , 1995, 84, 19-29.	0.9	238
8	Comparison of ion transport mechanisms between vestibular dark cells and strial marginal cells. <i>Hearing Research</i> , 1995, 90, 149-157.	0.9	223
9	Loss of cochlear HCO ₃ ⁻ secretion causes deafness via endolymphatic acidification and inhibition of Ca ²⁺ reabsorption in a Pendred syndrome mouse model. <i>American Journal of Physiology - Renal Physiology</i> , 2007, 292, F1345-F1353.	1.3	221
10	Functional significance of channels and transporters expressed in the inner ear and kidney. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 293, C1187-C1208.	2.1	217
11	Potassium Ion Movement in the Inner Ear: Insights from Genetic Disease and Mouse Models. <i>Physiology</i> , 2009, 24, 307-316.	1.6	186
12	Mutations of KCNJ10 Together with Mutations of SLC26A4 Cause Digenic Nonsyndromic Hearing Loss Associated with Enlarged Vestibular Aqueduct Syndrome. <i>American Journal of Human Genetics</i> , 2009, 84, 651-657.	2.6	144
13	Lack of pendrin HCO ₃ ⁻ transport elevates vestibular endolymphatic [Ca ²⁺] by inhibition of acid-sensitive TRPV5 and TRPV6 channels. <i>American Journal of Physiology - Renal Physiology</i> , 2007, 292, F1314-F1321.	1.3	119
14	Homeostatic Mechanisms in the Cochlea. <i>Springer Handbook of Auditory Research</i> , 1996, , 130-185.	0.3	114
15	Mouse model of enlarged vestibular aqueducts defines temporal requirement of <i>Slc26a4</i> expression for hearing acquisition. <i>Journal of Clinical Investigation</i> , 2011, 121, 4516-4525.	3.9	106
16	A Claudin-9-Based Ion Permeability Barrier Is Essential for Hearing. <i>PLoS Genetics</i> , 2009, 5, e1000610.	1.5	102
17	K ⁺ Cycling and Its Regulation in the Cochlea and the Vestibular Labyrinth. <i>Audiology and Neuro-Otology</i> , 2002, 7, 199-205.	0.6	91
18	Failure of Fluid Absorption in the Endolymphatic Sac Initiates Cochlear Enlargement that Leads to Deafness in Mice Lacking Pendrin Expression. <i>PLoS ONE</i> , 2010, 5, e14041.	1.1	74

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19	Free radical stress-mediated loss of Kcnj10 protein expression in stria vascularis contributes to deafness in Pendred syndrome mouse model. <i>American Journal of Physiology - Renal Physiology</i> , 2008, 294, F139-F148.	1.3	69
20	Tumor Necrosis Factor- α Enhances Microvascular Tone and Reduces Blood Flow in the Cochlea via Enhanced Sphingosine-1-Phosphate Signaling. <i>Stroke</i> , 2010, 41, 2618-2624.	1.0	69
21	Microarray-based comparison of three amplification methods for nanogram amounts of total RNA. <i>American Journal of Physiology - Cell Physiology</i> , 2005, 288, C1179-C1189.	2.1	68
22	Expression of epithelial calcium transport system in rat cochlea and vestibular labyrinth. <i>BMC Physiology</i> , 2010, 10, 1.	3.6	68
23	Hearing loss associated with enlargement of the vestibular aqueduct: Mechanistic insights from clinical phenotypes, genotypes, and mouse models. <i>Hearing Research</i> , 2011, 281, 11-17.	0.9	68
24	<i>Slc26a4</i> Genotypes and Phenotypes Associated with Enlargement of the Vestibular Aqueduct. <i>Cellular Physiology and Biochemistry</i> , 2011, 28, 545-552.	1.1	68
25	Ca ²⁺ -activated nonselective cation, maxi K ⁺ and Cl ⁻ channels in apical membrane of marginal cells of stria vascularis. <i>Hearing Research</i> , 1992, 61, 86-96.	0.9	64
26	Developmental delays consistent with cochlear hypothyroidism contribute to failure to develop hearing in mice lacking <i>Slc26a4</i>/pendrin expression. <i>American Journal of Physiology - Renal Physiology</i> , 2009, 297, F1435-F1447.	1.3	64
27	Slc26a4-insufficiency causes fluctuating hearing loss and stria vascularis dysfunction. <i>Neurobiology of Disease</i> , 2014, 66, 53-65.	2.1	58
28	ILDR1 null mice, a model of human deafness DFNB42, show structural aberrations of tricellular tight junctions and degeneration of auditory hair cells. <i>Human Molecular Genetics</i> , 2015, 24, 609-624.	1.4	58
29	Transepithelial voltage and resistance of vestibular dark cell epithelium from the gerbil ampulla. <i>Hearing Research</i> , 1994, 73, 101-108.	0.9	57
30	SLC26A4 Targeted to the Endolymphatic Sac Rescues Hearing and Balance in Slc26a4 Mutant Mice. <i>PLoS Genetics</i> , 2013, 9, e1003641.	1.5	57
31	Macrophage invasion contributes to degeneration of stria vascularis in Pendred syndrome mouse model. <i>BMC Medicine</i> , 2006, 4, 37.	2.3	56
32	Epithelial Cell Stretching and Luminal Acidification Lead to a Retarded Development of Stria Vascularis and Deafness in Mice Lacking Pendrin. <i>PLoS ONE</i> , 2011, 6, e17949.	1.1	53
33	Slc26a4 expression prevents fluctuation of hearing in a mouse model of large vestibular aqueduct syndrome. <i>Neuroscience</i> , 2016, 329, 74-82.	1.1	49
34	K ⁺ -induced swelling of vestibular dark cells is dependent on Na ⁺ and Cl ⁻ and inhibited by piretanide. <i>Pflügers Archiv European Journal of Physiology</i> , 1990, 416, 262-269.	1.3	47
35	Molecular architecture underlying fluid absorption by the developing inner ear. <i>ELife</i> , 2017, 6, .	2.8	43
36	K ⁺ -induced stimulation of K ⁺ secretion involves activation of the Isk channel in vestibular dark cells. <i>Hearing Research</i> , 1996, 100, 201-210.	0.9	42

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37	Endothelin-1â€“Induced Vasospasms of Spiral Modiolar Artery Are Mediated by Rho-Kinaseâ€“Induced Ca ²⁺ Sensitization of Contractile Apparatus and Reversed by Calcitonin Geneâ€“Related Peptide. <i>Stroke</i> , 2002, 33, 2965-2971.	1.0	41
38	Two types of chloride channel in the basolateral membrane of vestibular dark cells. <i>Hearing Research</i> , 1993, 69, 124-132.	0.9	38
39	The membrane potential of vestibular dark cells is controlled by a large Cl ⁻ conductance. <i>Hearing Research</i> , 1992, 62, 149-156.	0.9	37
40	Chloride secretion by semicircular canal duct epithelium is stimulated via β_2 -adrenergic receptors. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 283, C1752-C1760.	2.1	37
41	Mouse Models for Pendrin-Associated Loss of Cochlear and Vestibular Function. <i>Cellular Physiology and Biochemistry</i> , 2013, 32, 157-165.	1.1	35
42	Gene therapy for hereditary hearing loss by SLC26A4 mutations in mice reveals distinct functional roles of pendrin in normal hearing. <i>Theranostics</i> , 2019, 9, 7184-7199.	4.6	35
43	Cochlear Blood Flow Regulation. , 2002, 59, 51-57.		31
44	The Role of Pendrin in the Development of the Murine Inner Ear. <i>Cellular Physiology and Biochemistry</i> , 2011, 28, 527-534.	1.1	31
45	Acute genetic ablation of pendrin lowers blood pressure in mice. <i>Nephrology Dialysis Transplantation</i> , 2017, 32, gfw393.	0.4	31
46	β_1 -Adrenergic receptors mediate vasoconstriction of the isolated spiral modiolar artery in vitro. <i>Hearing Research</i> , 1998, 119, 113-124.	0.9	30
47	Developmental expression of solute carrier family 26A member 4 (SLC26A4/pendrin) during amelogenesis in developing rodent teeth. <i>European Journal of Oral Sciences</i> , 2011, 119, 185-192.	0.7	30
48	Vestibular dark cells contain the exchanger NHE-1 in the basolateral membrane. <i>Hearing Research</i> , 1996, 94, 94-106.	0.9	28
49	Membrane potential measurements of transitional cells from the crista ampullaris of the Gerbil. <i>Pflugers Archiv European Journal of Physiology</i> , 1989, 414, 656-662.	1.3	26
50	Aminoglycoside antibiotics inhibit maxi-K ⁺ channel in single isolated cochlear efferent nerve terminals. <i>Hearing Research</i> , 1993, 67, 13-19.	0.9	25
51	Maxi-K ⁺ channel in single isolated cochlear efferent nerve terminals. <i>Hearing Research</i> , 1993, 66, 123-129.	0.9	23
52	The isolated in vitro perfused spiral modiolar artery: pressure dependence of vasoconstriction. <i>Hearing Research</i> , 1998, 115, 113-118.	0.9	22
53	Tmc2 expression partially restores auditory function in a mouse model of DFNB7/B11 deafness caused by loss of Tmc1 function. <i>Scientific Reports</i> , 2018, 8, 12125.	1.6	22
54	Apical membrane P2Y ₄ purinergic receptor controls K ⁺ secretion by strial marginal cell epithelium. <i>Cell Communication and Signaling</i> , 2005, 3, 13.	2.7	20

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55	Neurogenic regulation of cochlear blood flow occurs along the basilar artery, the anterior inferior cerebellar artery and at branch points of the spiral modiolar artery. <i>Hearing Research</i> , 2005, 209, 91-96.	0.9	20
56	Slc26a7 Chloride Channel Activity and Localization in Mouse Reissner's Membrane Epithelium. <i>PLoS ONE</i> , 2014, 9, e97191.	1.1	20
57	Pharmacological reversal of endothelin-1 mediated constriction of the spiral modiolar artery: a potential new treatment for sudden sensorineural hearing loss. <i>BMC Ear, Nose and Throat Disorders</i> , 2005, 5, 10.	2.6	19
58	Functional α_2 -Adrenergic Receptors Are Present in Nonstrial Tissues of the Lateral Wall in the Gerbil Cochlea. <i>Audiology and Neuro-Otology</i> , 2001, 6, 124-131.	0.6	18
59	Functional evidence for a monocarboxylate transporter (MCT) in strial marginal cells and molecular evidence for MCT1 and MCT2 in stria vascularis. <i>Hearing Research</i> , 1997, 114, 213-222.	0.9	17
60	Ca ²⁺ -dependence and nifedipine-sensitivity of vascular tone and contractility in the isolated superfused spiral modiolar artery in vitro. <i>Hearing Research</i> , 1998, 118, 90-100.	0.9	17
61	Adrenergic and Muscarinic Control of Cochlear Endolymph Production. , 2002, 59, 42-50.		17
62	The Na ⁺ /H ⁺ exchanger in transitional cells of the inner ear. <i>Hearing Research</i> , 1993, 69, 107-114.	0.9	16
63	Ion selectivity of volume regulatory mechanisms present during a hypoosmotic challenge in vestibular dark cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1995, 1240, 48-54.	1.4	16
64	Endothelin-A receptors mediate vasoconstriction of capillaries in the spiral ligament. <i>Hearing Research</i> , 1997, 112, 106-114.	0.9	16
65	Endolymphatic Na ⁺ and K ⁺ Concentrations during Cochlear Growth and Enlargement in Mice Lacking Slc26a4/pendrin. <i>PLoS ONE</i> , 2013, 8, e65977.	1.1	15
66	Chemical synthesis of tetracyclic terpenes and evaluation of antagonistic activity on endothelin-A receptors and voltage-gated calcium channels. <i>Bioorganic and Medicinal Chemistry</i> , 2015, 23, 5985-5998.	1.4	13
67	Osmotic water permeability of capillaries from the isolated spiral ligament: new in-vitro techniques for the study of vascular permeability and diameter. <i>Hearing Research</i> , 1996, 95, 49-56.	0.9	11
68	Gender Differences in Myogenic Regulation along the Vascular Tree of the Gerbil Cochlea. <i>PLoS ONE</i> , 2011, 6, e25659.	1.1	11
69	Ba ²⁺ and amiloride uncover or induce a pH-sensitive and a Na ⁺ or non-selective cation conductance in transitional cells of the inner ear. <i>Pflügers Archiv European Journal of Physiology</i> , 1994, 426, 258-266.	1.3	10
70	The gastric H,K-ATPase in stria vascularis contributes to pH regulation of cochlear endolymph but not to K secretion. <i>BMC Physiology</i> , 2017, 17, 1.	3.6	10
71	I(sK) Channel in Strial Marginal Cells. Voltage-Dependence, Ion-Selectivity, Inhibition by 293B and Sensitivity to Clofilium. <i>Auditory Neuroscience</i> , 1997, 3, 215-230.	0.2	10
72	ET _A Receptors in the Gerbil Spiral Modiolar Artery. , 2002, 59, 58-65.		9

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73	<i>SLC26A4</i> mutation testing for hearing loss associated with enlargement of the vestibular aqueduct. <i>World Journal of Otorhinolaryngology</i> , 2013, 3, 26.	0.1	9
74	Ion and Fluid Homeostasis in the Cochlea. <i>Springer Handbook of Auditory Research</i> , 2017, , 253-286.	0.3	7
75	Calcium sparks in the intact gerbil spiral modiolar artery. <i>BMC Physiology</i> , 2011, 11, 15.	3.6	6
76	NOS Inhibition Enhances Myogenic Tone by Increasing Rho-Kinase Mediated Ca ²⁺ Sensitivity in the Male but Not the Female Gerbil Spiral Modiolar Artery. <i>PLoS ONE</i> , 2013, 8, e53655.	1.1	6
77	Inner ear fluid homeostasis. , 2010, , .		5
78	Claudin expression during early postnatal development of the murine cochlea. <i>BMC Physiology</i> , 2018, 18, 1.	3.6	5
79	P2RX2 and P2RX4 receptors mediate cation absorption in transitional cells and supporting cells of the utricular macula. <i>Hearing Research</i> , 2020, 386, 107860.	0.9	5
80	Cochlear and Vestibular Function and Dysfunction. , 2010, , 425-437.		3
81	Ryanodine-induced vasoconstriction of the gerbil spiral modiolar artery depends on the Ca ²⁺ sensitivity but not on Ca ²⁺ sparks or BK channels. <i>BMC Physiology</i> , 2016, 16, 6.	3.6	3
82	Mouse Models Reveal the Role of Pendrin in the Inner Ear. , 2017, , 7-22.		2
83	Cochlear Homeostasis and Homeostatic Disorders. , 2008, , 49-100.		2
84	Molecular and pharmacological characteristics of the gerbil α_1 -adrenergic receptor. <i>Hearing Research</i> , 2012, 283, 144-150.	0.9	1
85	N-Ethylmaleimide Stimulates and Inhibits Ion Transport in Vestibular Dark Cells of Gerbil. <i>Auditory Neuroscience</i> , 1994, 1, 101-109.	0.2	1
86	TNF α compromises the inner ear microcirculation in a sphingosine kinase 1/sphingosine-1-phosphate dependent manner – a novel mechanism for sudden hearing loss (SHL). <i>FASEB Journal</i> , 2010, 24, 590.17.	0.2	0
87	Sphingosine-1-phosphate and endothelin-1 cause vasoconstriction of inner ear capillaries. <i>FASEB Journal</i> , 2010, 24, 973.12.	0.2	0
88	Calcium sparks, BK and SK channels regulate myogenic tone in the gerbil spiral modiolar artery. <i>FASEB Journal</i> , 2012, 26, 676.4.	0.2	0
89	BK channels are not involved in the ryanodine-induced vasoconstriction of the spiral modiolar artery. <i>FASEB Journal</i> , 2013, 27, 687.3.	0.2	0
90	Targeted expression of SLC26A4 rescues hearing and balance in <i>Slc26a4</i> ^{-/-} mice. <i>FASEB Journal</i> , 2013, 27, 736.3.	0.2	0