Stefan Heller

List of Publications by Year
in descending order

101 papers	8,742 citations	46918 47 h-index	43802 91 g-index
107 all docs	107 docs citations	107 times ranked	6817 citing authors

#	Article	IF	Citations
1	Immunohistochemistry and In Situ mRNA Detection Using Inner Ear Vibratome Sections. Neuromethods, 2022, , 41-58.	0.2	5
2	Molecular Tools to Study Regeneration of the Avian Cochlea and Utricle. Neuromethods, 2022, , 77-97.	0.2	4
3	Avian auditory hair cell regeneration is accompanied by JAK/STAT-dependent expression of immune-related genes in supporting cells. Development (Cambridge), 2022, 149, .	1.2	13
4	Greater epithelial ridge cells are the principal organoid-forming progenitors of the mouse cochlea. Cell Reports, 2021, 34, 108646.	2.9	48
5	Transcriptomic characterization of dying hair cells in the avian cochlea. Cell Reports, 2021, 34, 108902.	2.9	21
6	Cell-type identity of the avian cochlea. Cell Reports, 2021, 34, 108900.	2.9	31
7	Spatiotemporal dynamics of inner ear sensory and non-sensory cells revealed by single-cell transcriptomics. Cell Reports, 2021, 36, 109358.	2.9	31
8	Murine cochlear cell sorting and cell-type-specific organoid culture. STAR Protocols, 2021, 2, 100645.	0.5	1
9	Fluorescent in situ mRNA detection in the adult mouse cochlea. STAR Protocols, 2021, 2, 100711.	0.5	0
10	Progenitor Cells from the Adult Human Inner Ear. Anatomical Record, 2020, 303, 461-470.	0.8	40
11	Novel insights into inner ear development and regeneration for targeted hearing loss therapies. Hearing Research, 2020, 397, 107859.	0.9	48
12	Hair-bearing human skin generated entirely from pluripotent stem cells. Nature, 2020, 582, 399-404.	13.7	236
13	Stem Cell Approaches and Small Molecules. , 2020, , 945-961.		0
14	Stem Cells and the Bird Cochleaâ€"Where Is Everybody?. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a033183.	2.9	26
15	Single-cell proteomics reveals changes in expression during hair-cell development. ELife, 2019, 8, .	2.8	80
16	Hair Follicle Development in Mouse Pluripotent Stem Cell-Derived Skin Organoids. Cell Reports, 2018, 22, 242-254.	2.9	125
17	Aminoglycoside Damage and Hair Cell Regeneration in the Chicken Utricle. JARO - Journal of the Association for Research in Otolaryngology, 2018, 19, 17-29.	0.9	31
18	Single Cell Transcriptomics Reveal Abnormalities in Neurosensory Patterning of the Chd7 Mutant Mouse Ear. Frontiers in Genetics, 2018, 9, 473.	1.1	16

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19	Molecular characterization and prospective isolation of human fetal cochlear hair cell progenitors. Nature Communications, 2018, 9, 4027.	5.8	70
20	Fbxo2 mouse and embryonic stem cell reporter lines delineate in vitro-generated inner ear sensory epithelia cells and enable otic lineage selection and Cre-recombination. Developmental Biology, 2018, 443, 64-77.	0.9	13
21	Transcriptional Dynamics of Hair-Bundle Morphogenesis Revealed with CellTrails. Cell Reports, 2018, 23, 2901-2914.e13.	2.9	40
22	Small Molecules for Early Endosome-Specific Patch Clamping. Cell Chemical Biology, 2017, 24, 907-916.e4.	2.5	34
23	Activity-Dependent Phosphorylation by CaMKIIÎ´ Alters the Ca2+ Affinity of the Multi-C2-Domain Protein Otoferlin. Frontiers in Synaptic Neuroscience, 2017, 9, 13.	1.3	14
24	Modulation of Wnt Signaling Enhances Inner Ear Organoid Development in 3D Culture. PLoS ONE, 2016, 11, e0162508.	1.1	61
25	Single-cell analysis delineates a trajectory toward the human early otic lineage. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8508-8513.	3.3	60
26	Identification of novel MYO18A interaction partners required for myoblast adhesion and muscle integrity. Scientific Reports, 2016, 6, 36768.	1.6	10
27	Identification and characterization of mouse otic sensory lineage genes. Frontiers in Cellular Neuroscience, 2015, 9, 79.	1.8	41
28	Changes in the regulation of the Notch signaling pathway are temporally correlated with regenerative failure in the mouse cochlea. Frontiers in Cellular Neuroscience, 2015, 9, 110.	1.8	111
29	Quantitative High-Resolution Cellular Map of the Organ of Corti. Cell Reports, 2015, 11, 1385-1399.	2.9	79
30	Applications for single cell trajectory analysis in inner ear development and regeneration. Cell and Tissue Research, 2015, 361, 49-57.	1.5	26
31	3D computational reconstruction of tissues with hollow spherical morphologies using single-cell gene expression data. Nature Protocols, 2015, 10, 459-474.	5.5	20
32	Cisplatin exposure damages resident stem cells of the mammalian inner Ear. Developmental Dynamics, 2014, 243, 1328-1337.	0.8	24
33	Î±-Tubulin K40 acetylation is required for contact inhibition of proliferation and cellâ€“substrate adhesion. Molecular Biology of the Cell, 2014, 25, 1854-1866.	0.9	71
34	Inner Ear Hair Cell-Like Cells from Human Embryonic Stem Cells. Stem Cells and Development, 2014, 23, 1275-1284.	1.1	107
35	Reconstruction of the Mouse Otocyst and Early Neuroblast Lineage at Single-Cell Resolution. Cell, 2014, 157, 964-978.	13.5	140
36	Special issue on inner ear development and regeneration. Hearing Research, 2013, 297, 1-2.	0.9	3

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37	Tympanic border cells are Wnt-responsive and can act as progenitors for postnatal mouse cochlear cells. Development (Cambridge), 2013, 140, 1196-1206.	1.2	87
38	Transient, afferent input-dependent, postnatal niche for neural progenitor cells in the cochlear nucleus. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14456-14461.	3.3	17
39	FCHSD1 and FCHSD2 Are Expressed in Hair Cell Stereocilia and Cuticular Plate and Regulate Actin Polymerization In Vitro. PLoS ONE, 2013, 8, e56516.	1.1	34
40	A Novel Ion Channel Formed by Interaction of TRPML3 with TRPV5. PLoS ONE, 2013, 8, e58174.	1.1	18
41	A Simple Method for Purification of Vestibular Hair Cells and Non-Sensory Cells, and Application for Proteomic Analysis. PLoS ONE, 2013, 8, e66026.	1.1	24
42	Constitutive Activity of TRPML2 and TRPML3 Channels versus Activation by Low Extracellular Sodium and Small Molecules. Journal of Biological Chemistry, 2012, 287, 22701-22708.	1.6	29
43	Constitutive Activity of TRPML2 and TRPML3 Channels versus Activation by Low Extracellular Sodium and Small Molecules. Journal of Biological Chemistry, 2012, 287, 22701-22708.	1.6	26
44	Regenerative Medicine for the Special Senses: Restoring the Inputs. Journal of Neuroscience, 2012, 32, 14053-14057.	1.7	10
45	Concise Review: Inner Ear Stem Cellsâ€"An Oxymoron, but Why?. Stem Cells, 2012, 30, 69-74.	1.4	25
46	Oriented collagen as a potential cochlear implant electrode surface coating to achieve directed neurite outgrowth. European Archives of Oto-Rhino-Laryngology, 2012, 269, 1111-1116.	0.8	12
47	Serial Analysis of Gene Expression in the Chicken Otocyst. JARO - Journal of the Association for Research in Otolaryngology, 2011, 12, 697-710.	0.9	9
48	Intrinsic regenerative potential of murine cochlear supporting cells. Scientific Reports, 2011, 1, 26.	1.6	104
49	Curing hearing loss: Patient expectations, health care practitioners, and basic science. Journal of Communication Disorders, 2010, 43, 311-318.	0.8	30
50	A helix-breaking mutation in the epithelial Ca2+ channel TRPV5 leads to reduced Ca2+-dependent inactivation. Cell Calcium, 2010, 48, 275-287.	1.1	13
51	Small Molecule Activators of TRPML3. Chemistry and Biology, 2010, 17, 135-148.	6.2	105
52	PIST regulates the intracellular trafficking and plasma membrane expression of Cadherin 23. BMC Cell Biology, 2010, 11, 80.	3.0	27
53	Mechanosensitive Hair Cell-like Cells from Embryonic and Induced Pluripotent Stem Cells. Cell, 2010, 141, 704-716.	13.5	304
54	Genetic Inactivation of Trpml3 Does Not Lead to Hearing and Vestibular Impairment in Mice. PLoS ONE, 2010, 5, e14317.	1.1	22

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55	Twinfilin 2 Regulates Actin Filament Lengths in Cochlear Stereocilia. Journal of Neuroscience, 2009, 29, 15083-15088.	1.7	82
56	Life and Death of Sensory Hair Cells Expressing Constitutively Active TRPML3. Journal of Biological Chemistry, 2009, 284, 13823-13831.	1.6	23
57	The tissue-specific expression of TRPML2 (MCOLN-2) gene is influenced by the presence of TRPML1. Pflugers Archiv European Journal of Physiology, 2009, 459, 79-91.	1.3	69
58	Stem/Progenitor Cells Derived from the Cochlear Sensory Epithelium Give Rise to Spheres with Distinct Morphologies and Features. JARO - Journal of the Association for Research in Otolaryngology, 2009, 10, 173-190.	0.9	65
59	Quo vadis, hair cell regeneration?. Nature Neuroscience, 2009, 12, 679-685.	7.1	154
60	Rethinking How Hearing Happens. Neuron, 2009, 62, 305-307.	3.8	3
61	Isolation of Sphere-Forming Stem Cells from the Mouse Inner Ear. Methods in Molecular Biology, 2009, 493, 141-162.	0.4	68
62	Diverse expression patterns of LIMâ€homeodomain transcription factors (LIMâ€HDs) in mammalian inner ear development. Developmental Dynamics, 2008, 237, 3305-3312.	0.8	33
63	Transient receptor potential vanilloid 4 deficiency suppresses unloadingâ€induced bone loss. Journal of Cellular Physiology, 2008, 216, 47-53.	2.0	103
64	Stimulus-specific Modulation of the Cation Channel TRPV4 by PACSIN 3. Journal of Biological Chemistry, 2008, 283, 6272-6280.	1.6	110
65	MAGI-1, A Candidate Stereociliary Scaffolding Protein, Associates with the Tip-Link Component Cadherin 23. Journal of Neuroscience, 2008, 28, 11269-11276.	1.7	48
66	Emerging Strategies for Restoring the Cochlea. , 2008, , 321-338.		0
67	A helix-breaking mutation in TRPML3 leads to constitutive activity underlying deafness in the varitint-waddler mouse. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 19583-19588.	3.3	150
68	TRP channels as candidates for hearing and balance abnormalities in vertebrates. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2007, 1772, 1022-1027.	1.8	62
69	Bone marrow mesenchymal stem cells are progenitors in vitro for inner ear hair cells. Molecular and Cellular Neurosciences, 2007, 34, 59-68.	1.0	104
70	The potential role of endogenous stem cells in regeneration of the inner ear. Hearing Research, 2007, 227, 48-52.	0.9	47
71	LIF promotes neurogenesis and maintains neural precursors in cell populations derived from spiral ganglion stem cells. BMC Developmental Biology, 2007, 7, 112.	2.1	53
72	Differential Distribution of Stem Cells in the Auditory and Vestibular Organs of the Inner Ear. JARO - Journal of the Association for Research in Otolaryngology, 2007, 8, 18-31.	0.9	299

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73	Robust Postmortem Survival of Murine Vestibular and Cochlear Stem Cells. JARO - Journal of the Association for Research in Otolaryngology, 2007, 8, 194-204.	0.9	51
74	Sonic hedgehog promotes mouse inner ear progenitor cell proliferation and hair cell generation in vitro. NeuroReport, 2006, 17, 121-124.	0.6	18
75	Reinnervation of hair cells by auditory neurons after selective removal of spiral ganglion neurons. Journal of Neurobiology, 2006, 66, 319-331.	3.7	66
76	Engraftment and differentiation of embryonic stem cellâ€“derived neural progenitor cells in the cochlear nerve trunk: Growth of processes into the organ of corti. Journal of Neurobiology, 2006, 66, 1489-1500.	3.7	180
77	PACSINs Bind to the TRPV4 Cation Channel. Journal of Biological Chemistry, 2006, 281, 18753-18762.	1.6	166
78	The mechanosensitive nature of TRPV channels. Pflugers Archiv European Journal of Physiology, 2005, 451, 193-203.	1.3	273
79	BMP4 signaling is involved in the generation of inner ear sensory epithelia. BMC Developmental Biology, 2005, 5, 16.	2.1	69
80	Sound from silence. Nature Medicine, 2005, 11, 249-250.	15.2	10
81	Absence of the RGS9Â·GÎ²5 GTPase-activating Complex in Photoreceptors of the R9AP Knockout Mouse. Journal of Biological Chemistry, 2004, 279, 1581-1584.	1.6	90
82	Correlation of expression of the actin filament-bundling protein espin with stereociliary bundle formation in the developing inner ear. Journal of Comparative Neurology, 2004, 468, 125-134.	0.9	45
83	Islet-1 expression in the developing chicken inner ear. Journal of Comparative Neurology, 2004, 477, 1-10.	0.9	58
84	Stem cells as therapy for hearing loss. Trends in Molecular Medicine, 2004, 10, 309-315.	3.5	80
85	Correlation of Pax-2 expression with cell proliferation in the developing chicken inner ear. Journal of Neurobiology, 2004, 60, 61-70.	3.7	46
86	Expression of Frizzled genes in the developing chick eye. Gene Expression Patterns, 2003, 3, 659-662.	0.3	23
87	Vertebrate and invertebrate TRPV-like mechanoreceptors. Cell Calcium, 2003, 33, 471-478.	1.1	93
88	Pluripotent stem cells from the adult mouse inner ear. Nature Medicine, 2003, 9, 1293-1299.	15.2	447
89	Expression patterns of the RGS9-1 anchoring protein R9AP in the chicken and mouse suggest multiple roles in the nervous system. Molecular and Cellular Neurosciences, 2003, 24, 687-695.	1.0	28
90	Generation of hair cells by stepwise differentiation of embryonic stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13495-13500.	3.3	264

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91	The DEP Domain Determines Subcellular Targeting of the GTPase Activating Protein RGS9<i>In Vivo</i>. Journal of Neuroscience, 2003, 23, 10175-10181.	1.7	113
92	A Unified Nomenclature for the Superfamily of TRP Cation Channels. Molecular Cell, 2002, 9, 229-231.	4.5	620
93	Molecular screens for inner ear genes. Journal of Neurobiology, 2002, 53, 265-275.	3.7	16
94	Parvalbumin 3 is an Abundant Ca2+ Buffer in Hair Cells. JARO - Journal of the Association for Research in Otolaryngology, 2002, 3, 488-498.	0.9	88
95	Application of physiological genomics to the study of hearing disorders. Journal of Physiology, 2002, 543, 3-12.	1.3	9
96	A Novel Conserved Cochlear Gene, OTOR: Identification, Expression Analysis, and Chromosomal Mapping. Genomics, 2000, 66, 242-248.	1.3	42
97	Vanilloid Receptorâ€"Related Osmotically Activated Channel (VR-OAC), a Candidate Vertebrate Osmoreceptor. Cell, 2000, 103, 525-535.	13.5	1,237
98	Mutations in a novel cochlear gene cause DFNA9, a human nonsyndromic deafness with vestibular dysfunction. Nature Genetics, 1998, 20, 299-303.	9.4	317
99	Two deaf mice, two deaf miceâ€¦. Nature Medicine, 1998, 4, 560-561.	15.2	8
100	A transient role for ciliary neurotrophic factor in chick photoreceptor development. , 1998, 37, 672-683.		27
101	Distribution of Ca2+-Activated K+ Channel Isoforms along the Tonotopic Gradient of the Chicken's Cochlea. Neuron, 1997, 19, 1061-1075.	3.8	202