# Stefan Heller

List of Publications by Year
in descending order



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|---|---|---|---|
| 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 | Vanilloid Receptorâ€“Related Osmotically Activated Channel (VR-OAC), a Candidate Vertebrate Osmoreceptor. Cell, 2000, 103, 525-535. | 13.5 | 1,237 |
| 2 | A Unified Nomenclature for the Superfamily of TRP Cation Channels. Molecular Cell, 2002, 9, 229-231. | 4.5 | 620 |
| 3 | Pluripotent stem cells from the adult mouse inner ear. Nature Medicine, 2003, 9, 1293-1299. | 15.2 | 447 |
| 4 | Mutations in a novel cochlear gene cause DFNA9, a human nonsyndromic deafness with vestibular dysfunction. Nature Genetics, 1998, 20, 299-303. | 9.4 | 317 |
| 5 | Mechanosensitive Hair Cell-like Cells from Embryonic and Induced Pluripotent Stem Cells. Cell, 2010, 141, 704-716. | 13.5 | 304 |
| 6 | 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 |
| 7 | The mechanosensitive nature of TRPV channels. Pflugers Archiv European Journal of Physiology, 2005, 451, 193-203. | 1.3 | 273 |
| 8 | 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 |
| 9 | Hair-bearing human skin generated entirely from pluripotent stem cells. Nature, 2020, 582, 399-404. | 13.7 | 236 |
| 10 | Distribution of Ca2+-Activated K+ Channel Isoforms along the Tonotopic Gradient of the Chicken's Cochlea. Neuron, 1997, 19, 1061-1075. | 3.8 | 202 |
| 11 | 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 |
| 12 | PACSINs Bind to the TRPV4 Cation Channel. Journal of Biological Chemistry, 2006, 281, 18753-18762. | 1.6 | 166 |
| 13 | Quo vadis, hair cell regeneration?. Nature Neuroscience, 2009, 12, 679-685. | 7.1 | 154 |
| 14 | 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 |
| 15 | Reconstruction of the Mouse Otocyst and Early Neuroblast Lineage at Single-Cell Resolution. Cell, 2014, 157, 964-978. | 13.5 | 140 |
| 16 | Hair Follicle Development in Mouse Pluripotent Stem Cell-Derived Skin Organoids. Cell Reports, 2018, 22, 242-254. | 2.9 | 125 |
| 17 | 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 |
| 18 | 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 |

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|---|---|---|---|
| 19 | Stimulus-specific Modulation of the Cation Channel TRPV4 by PACSIN 3. Journal of Biological Chemistry, 2008, 283, 6272-6280. | 1.6 | 110 |
| 20 | Inner Ear Hair Cell-Like Cells from Human Embryonic Stem Cells. Stem Cells and Development, 2014, 23, 1275-1284. | 1.1 | 107 |
| 21 | Small Molecule Activators of TRPML3. Chemistry and Biology, 2010, 17, 135-148. | 6.2 | 105 |
| 22 | 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 |
| 23 | Intrinsic regenerative potential of murine cochlear supporting cells. Scientific Reports, 2011, 1, 26. | 1.6 | 104 |
| 24 | Transient receptor potential vanilloid 4 deficiency suppresses unloadingâ€induced bone loss. Journal of Cellular Physiology, 2008, 216, 47-53. | 2.0 | 103 |
| 25 | Vertebrate and invertebrate TRPV-like mechanoreceptors. Cell Calcium, 2003, 33, 471-478. | 1.1 | 93 |
| 26 | 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 |
| 27 | 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 |
| 28 | 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 |
| 29 | Twinfilin 2 Regulates Actin Filament Lengths in Cochlear Stereocilia. Journal of Neuroscience, 2009, 29, 15083-15088. | 1.7 | 82 |
| 30 | Stem cells as therapy for hearing loss. Trends in Molecular Medicine, 2004, 10, 309-315. | 3.5 | 80 |
| 31 | Single-cell proteomics reveals changes in expression during hair-cell development. ELife, 2019, 8, . | 2.8 | 80 |
| 32 | Quantitative High-Resolution Cellular Map of the Organ of Corti. Cell Reports, 2015, 11, 1385-1399. | 2.9 | 79 |
| 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 | Molecular characterization and prospective isolation of human fetal cochlear hair cell progenitors. Nature Communications, 2018, 9, 4027. | 5.8 | 70 |
| 35 | BMP4 signaling is involved in the generation of inner ear sensory epithelia. BMC Developmental Biology, 2005, 5, 16. | 2.1 | 69 |
| 36 | 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 |

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|---|---|---|---|
| 37 | Isolation of Sphere-Forming Stem Cells from the Mouse Inner Ear. Methods in Molecular Biology, 2009, 493, 141-162. | 0.4 | 68 |
| 38 | Reinnervation of hair cells by auditory neurons after selective removal of spiral ganglion neurons. Journal of Neurobiology, 2006, 66, 319-331. | 3.7 | 66 |
| 39 | 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 |
| 40 | 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 |
| 41 | Modulation of Wnt Signaling Enhances Inner Ear Organoid Development in 3D Culture. PLoS ONE, 2016, 11, e0162508. | 1.1 | 61 |
| 42 | 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 |
| 43 | Islet-1 expression in the developing chicken inner ear. Journal of Comparative Neurology, 2004, 477, 1-10. | 0.9 | 58 |
| 44 | 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 |
| 45 | 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 |
| 46 | 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 |
| 47 | Novel insights into inner ear development and regeneration for targeted hearing loss therapies. Hearing Research, 2020, 397, 107859. | 0.9 | 48 |
| 48 | Greater epithelial ridge cells are the principal organoid-forming progenitors of the mouse cochlea. Cell Reports, 2021, 34, 108646. | 2.9 | 48 |
| 49 | The potential role of endogenous stem cells in regeneration of the inner ear. Hearing Research, 2007, 227, 48-52. | 0.9 | 47 |
| 50 | Correlation of Pax-2 expression with cell proliferation in the developing chicken inner ear. Journal of Neurobiology, 2004, 60, 61-70. | 3.7 | 46 |
| 51 | 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 |
| 52 | A Novel Conserved Cochlear Gene, OTOR: Identification, Expression Analysis, and Chromosomal Mapping. Genomics, 2000, 66, 242-248. | 1.3 | 42 |
| 53 | Identification and characterization of mouse otic sensory lineage genes. Frontiers in Cellular Neuroscience, 2015, 9, 79. | 1.8 | 41 |
| 54 | Transcriptional Dynamics of Hair-Bundle Morphogenesis Revealed with CellTrails. Cell Reports, 2018, 23, 2901-2914.e13. | 2.9 | 40 |

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|---|---|---|---|
| 55 | Progenitor Cells from the Adult Human Inner Ear. Anatomical Record, 2020, 303, 461-470. | 0.8 | 40 |
| 56 | Small Molecules for Early Endosome-Specific Patch Clamping. Cell Chemical Biology, 2017, 24, 907-916.e4. | 2.5 | 34 |
| 57 | 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 |
| 58 | Diverse expression patterns of LIMâ€homeodomain transcription factors (LIMâ€HDs) in mammalian inner ear development. Developmental Dynamics, 2008, 237, 3305-3312. | 0.8 | 33 |
| 59 | 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 |
| 60 | Cell-type identity of the avian cochlea. Cell Reports, 2021, 34, 108900. | 2.9 | 31 |
| 61 | Spatiotemporal dynamics of inner ear sensory and non-sensory cells revealed by single-cell transcriptomics. Cell Reports, 2021, 36, 109358. | 2.9 | 31 |
| 62 | Curing hearing loss: Patient expectations, health care practitioners, and basic science. Journal of Communication Disorders, 2010, 43, 311-318. | 0.8 | 30 |
| 63 | 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 |
| 64 | 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 |
| 65 | A transient role for ciliary neurotrophic factor in chick photoreceptor development. , 1998, 37, 672-683. | | 27 |
| 66 | PIST regulates the intracellular trafficking and plasma membrane expression of Cadherin 23. BMC Cell Biology, 2010, 11, 80. | 3.0 | 27 |
| 67 | 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 |
| 68 | Applications for single cell trajectory analysis in inner ear development and regeneration. Cell and Tissue Research, 2015, 361, 49-57. | 1.5 | 26 |
| 69 | Stem Cells and the Bird Cochleaâ€"Where Is Everybody?. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a033183. | 2.9 | 26 |
| 70 | Concise Review: Inner Ear Stem Cellsâ€"An Oxymoron, but Why?. Stem Cells, 2012, 30, 69-74. | 1.4 | 25 |
| 71 | Cisplatin exposure damages resident stem cells of the mammalian inner Ear. Developmental Dynamics, 2014, 243, 1328-1337. | 0.8 | 24 |
| 72 | 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 |

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|---|---|---|---|
| 73 | Expression of Frizzled genes in the developing chick eye. Gene Expression Patterns, 2003, 3, 659-662. | 0.3 | 23 |
| 74 | Life and Death of Sensory Hair Cells Expressing Constitutively Active TRPML3. Journal of Biological Chemistry, 2009, 284, 13823-13831. | 1.6 | 23 |
| 75 | Genetic Inactivation of Trpml3 Does Not Lead to Hearing and Vestibular Impairment in Mice. PLoS ONE, 2010, 5, e14317. | 1.1 | 22 |
| 76 | Transcriptomic characterization of dying hair cells in the avian cochlea. Cell Reports, 2021, 34, 108902. | 2.9 | 21 |
| 77 | 3D computational reconstruction of tissues with hollow spherical morphologies using single-cell gene expression data. Nature Protocols, 2015, 10, 459-474. | 5.5 | 20 |
| 78 | Sonic hedgehog promotes mouse inner ear progenitor cell proliferation and hair cell generation in vitro. NeuroReport, 2006, 17, 121-124. | 0.6 | 18 |
| 79 | A Novel Ion Channel Formed by Interaction of TRPML3 with TRPV5. PLoS ONE, 2013, 8, e58174. | 1.1 | 18 |
| 80 | 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 |
| 81 | Molecular screens for inner ear genes. Journal of Neurobiology, 2002, 53, 265-275. | 3.7 | 16 |
| 82 | Single Cell Transcriptomics Reveal Abnormalities in Neurosensory Patterning of the Chd7 Mutant Mouse Ear. Frontiers in Genetics, 2018, 9, 473. | 1.1 | 16 |
| 83 | 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 |
| 84 | 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 |
| 85 | 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 |
| 86 | 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 |
| 87 | 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 |
| 88 | Sound from silence. Nature Medicine, 2005, 11, 249-250. | 15.2 | 10 |
| 89 | Regenerative Medicine for the Special Senses: Restoring the Inputs. Journal of Neuroscience, 2012, 32, 14053-14057. | 1.7 | 10 |
| 90 | Identification of novel MYO18A interaction partners required for myoblast adhesion and muscle integrity. Scientific Reports, 2016, 6, 36768. | 1.6 | 10 |

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|---|---|---|---|
| 91 | Application of physiological genomics to the study of hearing disorders. Journal of Physiology, 2002, 543, 3-12. | 1.3 | 9 |
| 92 | 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 |
| 93 | Two deaf mice, two deaf miceâ€¦. Nature Medicine, 1998, 4, 560-561. | 15.2 | 8 |
| 94 | Immunohistochemistry and In Situ mRNA Detection Using Inner Ear Vibratome Sections. Neuromethods, 2022, , 41-58. | 0.2 | 5 |
| 95 | Molecular Tools to Study Regeneration of the Avian Cochlea and Utricle. Neuromethods, 2022, , 77-97. | 0.2 | 4 |
| 96 | Rethinking How Hearing Happens. Neuron, 2009, 62, 305-307. | 3.8 | 3 |
| 97 | Special issue on inner ear development and regeneration. Hearing Research, 2013, 297, 1-2. | 0.9 | 3 |
| 98 | Murine cochlear cell sorting and cell-type-specific organoid culture. STAR Protocols, 2021, 2, 100645. | 0.5 | 1 |
| 99 | Fluorescent in situ mRNA detection in the adult mouse cochlea. STAR Protocols, 2021, 2, 100711. | 0.5 | 0 |
| 100 | Stem Cell Approaches and Small Molecules. , 2020, , 945-961. | | 0 |
| 101 | Emerging Strategies for Restoring the Cochlea. , 2008, , 321-338. | | 0 |