Wieland B Huttner

List of Publications by Year
in descending order

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124 papers	18,118 citations	18482 62 h-index	17105 122 g-index
141 all docs	141 docs citations	141 times ranked	14776 citing authors

#	Article	IF	Citations
1	From stem and progenitor cells to neurons in the developing neocortex: key differences among hominids. FEBS Journal, 2022, 289, 1524-1535.	4.7	11
2	What Are the Human-Specific Aspects of Neocortex Development?. Frontiers in Neuroscience, 2022, 16, 878950.	2.8	7
3	Progenitor-Based Cell Biological Aspects of Neocortex Development and Evolution. Frontiers in Cell and Developmental Biology, 2022, 10, .	3.7	14
4	Metabolic Regulation of Neocortical Expansion in Development and Evolution. Neuron, 2021, 109, 408-419.	8.1	51
5	Sulfonated cryogel scaffolds for focal delivery in ex-vivo brain tissue cultures. Biomaterials, 2021, 271, 120712.	11.4	12
6	Human-Specific Genes, Cortical Progenitor Cells, and Microcephaly. Cells, 2021, 10, 1209.	4.1	23
7	Expression of humanâ€specific <i>ARHGAP11B</i> in mice leads to neocortex expansion and increased memory flexibility. EMBO Journal, 2021, 40, e107093.	7.8	40
8	Length of the Neurogenic Periodâ€”A Key Determinant for the Generation of Upper-Layer Neurons During Neocortex Development and Evolution. Frontiers in Cell and Developmental Biology, 2021, 9, 676911.	3.7	27
9	Generation of interspecies mouse-rat chimeric embryos by embryonic stem (ES) cell microinjection. STAR Protocols, 2021, 2, 100494.	1.2	0
10	How neural stem cells contribute to neocortex development. Biochemical Society Transactions, 2021, 49, 1997-2006.	3.4	22
11	Mitotic WNT signalling orchestrates neurogenesis in the developing neocortex. EMBO Journal, 2021, 40, e108041.	7.8	26
12	Developmental HCN channelopathy results in decreased neural progenitor proliferation and microcephaly in mice. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	6
13	H3 acetylation selectively promotes basal progenitor proliferation and neocortex expansion. Science Advances, 2021, 7, eabc6792.	10.3	16
14	Neocortex expansion in development and evolutionâ€”from genes to progenitor cell biology. Current Opinion in Cell Biology, 2021, 73, 9-18.	5.4	28
15	Manipulation of Single Neural Stem Cells and Neurons in Brain Slices using Robotic Microinjection. Journal of Visualized Experiments, 2021, , .	0.3	2
16	Ex vivo Tissue Culture Protocols for Studying the Developing Neocortex. Bio-protocol, 2021, 11, e4031.	0.4	1
17	Primary Cilia and Centrosomes in Neocortex Development. Frontiers in Neuroscience, 2021, 15, 755867.	2.8	24
18	The Role of the Extracellular Matrix in Neural Progenitor Cell Proliferation and Cortical Folding During Human Neocortex Development. Frontiers in Cellular Neuroscience, 2021, 15, 804649.	3.7	13

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19	Human-Specific ARHGAP11B Acts in Mitochondria to Expand Neocortical Progenitors by Glutaminolysis. Neuron, 2020, 105, 867-881.e9.	8.1	101
20	Serotonin Receptor 2A Activation Promotes Evolutionarily Relevant Basal Progenitor Proliferation in the Developing Neocortex. Neuron, 2020, 108, 1113-1129.e6.	8.1	26
21	Basal Progenitor Morphology and Neocortex Evolution. Trends in Neurosciences, 2020, 43, 843-853.	8.6	57
22	Lengthening Neurogenic Period during Neocortical Development Causes a Hallmark of Neocortex Expansion. Current Biology, 2020, 30, 4227-4237.e5.	3.9	35
23	Neurotransmitters as Modulators of Neural Progenitor Cell Proliferation During Mammalian Neocortex Development. Frontiers in Cell and Developmental Biology, 2020, 8, 391.	3.7	23
24	Human-specific <i>ARHGAP11B</i> increases size and folding of primate neocortex in the fetal marmoset. Science, 2020, 369, 546-550.	12.6	127
25	Prominins control ciliary length throughout the animal kingdom: New lessons from human prominin-1 and zebrafish prominin-3. Journal of Biological Chemistry, 2020, 295, 6007-6022.	3.4	17
26	Formation of gyri and sulci. , 2020, , 223-252.		0
27	Transcriptional Regulators and Human-Specific/Primate-Specific Genes in Neocortical Neurogenesis. International Journal of Molecular Sciences, 2020, 21, 4614.	4.1	23
28	Signs of Reduced Basal Progenitor Levels and Cortical Neurogenesis in Human Fetuses with Open Spina Bifida at 11â€"15 Weeks of Gestation. Journal of Neuroscience, 2020, 40, 1766-1777.	3.6	5
29	A truncating Aspm allele leads to a complex cognitive phenotype and region-specific reductions in parvalbuminergic neurons. Translational Psychiatry, 2020, 10, 66.	4.8	11
30	In Vivo Targeting of Neural Progenitor Cells in Ferret Neocortex by In Utero Electroporation. Journal of Visualized Experiments, 2020, , .	0.3	4
31	Extracellular matrix-inducing Sox9 promotes both basal progenitor proliferation and gliogenesis in developing neocortex. ELife, 2020, 9, .	6.0	33
32	The Mode of Stem Cell Division Is Dependent on the Differential Interaction of Î²-Catenin with the Kat3 Coactivators CBP or p300. Cancers, 2019, 11, 962.	3.7	9
33	Malformations of Human Neocortex in Development â€" Their Progenitor Cell Basis and Experimental Model Systems. Frontiers in Cellular Neuroscience, 2019, 13, 305.	3.7	32
34	Robotic platform for microinjection into single cells in brain tissue. EMBO Reports, 2019, 20, e47880.	4.5	17
35	Promininâ€1 (CD133) modulates the architecture and dynamics of microvilli. Traffic, 2019, 20, 39-60.	2.7	32
36	YAP Activity Is Necessary and Sufficient for Basal Progenitor Abundance and Proliferation in the Developing Neocortex. Cell Reports, 2019, 27, 1103-1118.e6.	6.4	43

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37	Transport, Metabolism, and Function of Thyroid Hormones in the Developing Mammalian Brain. Frontiers in Endocrinology, 2019, 10, 209.	3.5	53
38	How the extracellular matrix shapes neural development. Open Biology, 2019, 9, 180216.	3.6	166
39	Neocortical Expansion Due to Increased Proliferation of Basal Progenitors Is Linked to Changes in Their Morphology. Cell Stem Cell, 2019, 24, 535-550.e9.	11.1	114
40	The centrosome protein AKNA regulates neurogenesis via microtubule organization. Nature, 2019, 567, 113-117.	27.8	67
41	Organoid single-cell genomic atlas uncovers human-specific features of brain development. Nature, 2019, 574, 418-422.	27.8	496
42	Genetic Modification of Brain Organoids. Frontiers in Cellular Neuroscience, 2019, 13, 558.	3.7	32
43	Promininâ€1 controls stem cell activation by orchestrating ciliary dynamics. EMBO Journal, 2019, 38, .	7.8	47
44	Primate neocortex development and evolution: Conserved versus evolved folding. Journal of Comparative Neurology, 2019, 527, 1621-1632.	1.6	8
45	The Golgi Apparatus in Polarized Neuroepithelial Stem Cells and Their Progeny: Canonical and Noncanonical Features. Results and Problems in Cell Differentiation, 2019, 67, 359-375.	0.7	6
46	Insm1 Induces Neural Progenitor Delamination in Developing Neocortex via Downregulation of the Adherens Junction Belt-Specific Protein Plekha7. Neuron, 2018, 97, 1299-1314.e8.	8.1	73
47	A novel population of Hopx-dependent basal radial glial cells in the developing mouse neocortex. Development (Cambridge), 2018, 145, .	2.5	62
48	Evolution and cell-type specificity of human-specific genes preferentially expressed in progenitors of fetal neocortex. ELife, 2018, 7, .	6.0	160
49	Extracellular Matrix Components HAPLN1, Lumican, and Collagen I Cause Hyaluronic Acid-Dependent Folding of the Developing Human Neocortex. Neuron, 2018, 99, 702-719.e6.	8.1	139
50	Epigenetic and Transcriptional Pre-patterningâ€"An Emerging Theme in Cortical Neurogenesis. Frontiers in Neuroscience, 2018, 12, 359.	2.8	29
51	Brain organoids as models to study human neocortex development and evolution. Current Opinion in Cell Biology, 2018, 55, 8-16.	5.4	59
52	Human-specific ARHGAP11B induces hallmarks of neocortical expansion in developing ferret neocortex. ELife, 2018, 7, .	6.0	84
53	Human-specific genomic signatures of neocortical expansion. Current Opinion in Neurobiology, 2017, 42, 33-44.	4.2	77
54	Epigenome profiling and editing of neocortical progenitor cells during development. EMBO Journal, 2017, 36, 2642-2658.	7.8	94

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55	Novel gene function and regulation in neocortex expansion. Current Opinion in Cell Biology, 2017, 49, 22-30.	5.4	22
56	Neural progenitor cells and their role in the development and evolutionary expansion of the neocortex. Wiley Interdisciplinary Reviews: Developmental Biology, 2017, 6, e256.	5.9	102
57	A tunable refractive index matching medium for live imaging cells, tissues and model organisms. ELife, 2017, 6, .	6.0	128
58	Monoclonal Antibodies 13A4 and AC133 Do Not Recognize the Canine Ortholog of Mouse and Human Stem Cell Antigen Prominin-1 (CD133). PLoS ONE, 2016, 11, e0164079.	2.5	14
59	Relief of hypoxia by angiogenesis promotes neural stem cell differentiation by targeting glycolysis. EMBO Journal, 2016, 35, 924-941.	7.8	161
60	<scp>GEMC</scp> 1 is a critical regulator of multiciliated cell differentiation. EMBO Journal, 2016, 35, 942-960.	7.8	91
61	A single splice site mutation in human-specific <i>ARHGAP11B</i> causes basal progenitor amplification. Science Advances, 2016, 2, e1601941.	10.3	77
62	<scp>CRISPR</scp> /Cas9â€•induced disruption of gene expression in mouse embryonic brain and single neural stem cells <i>in vivo</i>. EMBO Reports, 2016, 17, 338-348.	4.5	72
63	Sâ€•phase duration is the main target of cell cycle regulation in neural progenitors of developing ferret neocortex. Journal of Comparative Neurology, 2016, 524, 456-470.	1.6	56
64	Neocortex expansion in development and evolution â€" from cell biology to single genes. Current Opinion in Neurobiology, 2016, 39, 122-132.	4.2	66
65	Comment on â€œCortical folding scales universally with surface area and thickness, not number of neuronsâ€• Science, 2016, 351, 825-825.	12.6	14
66	Abnormal spindle-like microcephaly-associated (ASPM) mutations strongly disrupt neocortical structure but spare the hippocampus and long-term memory. Cortex, 2016, 74, 158-176.	2.4	32
67	Differences and similarities between human and chimpanzee neural progenitors during cerebral cortex development. ELife, 2016, 5, .	6.0	200
68	Neural Stem Cells in Cerebral Cortex Development. , 2015, , 1-25.		4
69	Sustained Pax6 Expression Generates Primate-like Basal Radial Glia in Developing Mouse Neocortex. PLoS Biology, 2015, 13, e1002217.	5.6	93
70	Neurodevelopmental LincRNA Microsyteny Conservation and Mammalian Brain Size Evolution. PLoS ONE, 2015, 10, e0131818.	2.5	15
71	Human cerebral organoids recapitulate gene expression programs of fetal neocortex development. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15672-15677.	7.1	870
72	Novel insights into mammalian embryonic neural stem cell division: focus on microtubules. Molecular Biology of the Cell, 2015, 26, 4302-4306.	2.1	32

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73	Human-specific gene <i>ARHGAP11B</i> promotes basal progenitor amplification and neocortex expansion. Science, 2015, 347, 1465-1470.	12.6	487
74	Stem cells: slow and steady wins the race. Nature Neuroscience, 2015, 18, 613-614.	14.8	4
75	Analysis of primary cilia in the developing mouse brain. Methods in Cell Biology, 2015, 127, 93-129.	1.1	13
76	An Adaptive Threshold in Mammalian Neocortical Evolution. PLoS Biology, 2014, 12, e1002000.	5.6	139
77	The Cell Biology of Neurogenesis: Toward an Understanding of the Development and Evolution of the Neocortex. Annual Review of Cell and Developmental Biology, 2014, 30, 465-502.	9.4	616
78	Microinjection of membrane-impermeable molecules into single neural stem cells in brain tissue. Nature Protocols, 2014, 9, 1170-1182.	12.0	31
79	Integrin Î±vÎ²3 and thyroid hormones promote expansion of progenitors in embryonic neocortex. Development (Cambridge), 2014, 141, 795-806.	2.5	97
80	Neural progenitors, neurogenesis and the evolution of the neocortex. Development (Cambridge), 2014, 141, 2182-2194.	2.5	526
81	3â€² UTR-Dependent, miR-92-Mediated Restriction of Tis21 Expression Maintains Asymmetric Neural Stem Cell Division to Ensure Proper Neocortex Size. Cell Reports, 2014, 7, 398-411.	6.4	42
82	Specific polar subpopulations of astral microtubules control spindle orientation and symmetric neural stem cell division. ELife, 2014, 3, .	6.0	61
83	Asymmetric Inheritance of Centrosome-Associated Primary Cilium Membrane Directs Ciliogenesis after Cell Division. Cell, 2013, 155, 333-344.	28.9	253
84	Progenitor Networking in the Fetal Primate Neocortex. Neuron, 2013, 80, 259-262.	8.1	3
85	The secondary loss of gyrencephaly as an example of evolutionary phenotypical reversal. Frontiers in Neuroanatomy, 2013, 7, 16.	1.7	69
86	Conical expansion of the outer subventricular zone and the role of neocortical folding in evolution and development. Frontiers in Human Neuroscience, 2013, 7, 424.	2.0	99
87	Basolateral rather than apical primary cilia on neuroepithelial cells committed to delamination. Development (Cambridge), 2012, 139, 95-105.	2.5	88
88	A new approach to manipulate the fate of single neural stem cells in tissue. Nature Neuroscience, 2012, 15, 329-337.	14.8	30
89	Transcriptomes of germinal zones of human and mouse fetal neocortex suggest a role of extracellular matrix in progenitor self-renewal. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11836-11841.	7.1	282
90	Abundant Occurrence of Basal Radial Glia in the Subventricular Zone of Embryonic Neocortex of a Lissencephalic Primate, the Common Marmoset Callithrix jacchus. Cerebral Cortex, 2012, 22, 469-481.	2.9	201

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91	Cortical progenitor expansion, self-renewal and neurogenesisâ€"a polarized perspective. Current Opinion in Neurobiology, 2011, 21, 23-35.	4.2	248
92	Haematopoietic stem cell differentiation promotes the release of promininâ€•1/CD133â€•containing membrane vesiclesâ€"a role of the endocyticâ€"exocytic pathway. EMBO Molecular Medicine, 2011, 3, 398-409.	6.9	102
93	Neural stem and progenitor cells shorten S-phase on commitment to neuron production. Nature Communications, 2011, 2, 154.	12.8	330
94	The role of Pax6 in regulating the orientation and mode of cell division of progenitors in the mouse cerebral cortex. Development (Cambridge), 2011, 138, 5067-5078.	2.5	94
95	OSVZ progenitors of human and ferret neocortex are epithelial-like and expand by integrin signaling. Nature Neuroscience, 2010, 13, 690-699.	14.8	699
96	Neural Progenitor Nuclei IN Motion. Neuron, 2010, 67, 906-914.	8.1	196
97	Loss of the Cholesterol-Binding Protein Prominin-1/CD133 Causes Disk Dysmorphogenesis and Photoreceptor Degeneration. Journal of Neuroscience, 2009, 29, 2297-2308.	3.6	164
98	Myosin II is required for interkinetic nuclear migration of neural progenitors. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16487-16492.	7.1	142
99	Intermediate Neuronal Progenitors (Basal Progenitors) Produce Pyramidalâ€"Projection Neurons for All Layers of Cerebral Cortex. Cerebral Cortex, 2009, 19, 2439-2450.	2.9	369
100	Cdk4/CyclinD1 Overexpression in Neural Stem Cells Shortens G1, Delays Neurogenesis, and Promotes the Generation and Expansion of Basal Progenitors. Cell Stem Cell, 2009, 5, 320-331.	11.1	490
101	Cytokinesis of neuroepithelial cells can divide their basal process before anaphase. EMBO Journal, 2008, 27, 3151-3163.	7.8	97
102	The cell biology of neural stem and progenitor cells and its significance for their proliferation versus differentiation during mammalian brain development. Current Opinion in Cell Biology, 2008, 20, 707-715.	5.4	216
103	Insulinoma-Associated 1 Has a Panneurogenic Role and Promotes the Generation and Expansion of Basal Progenitors in the Developing Mouse Neocortex. Neuron, 2008, 60, 40-55.	8.1	150
104	Making bigger brainsâ€"the evolution of neural-progenitor-cell division. Journal of Cell Science, 2008, 121, 2783-2793.	2.0	250
105	The Stem Cell Marker CD133 (Prominin-1) Is Expressed in Various Human Glandular Epithelia. Journal of Histochemistry and Cytochemistry, 2008, 56, 977-993.	2.5	124
106	Mutant prominin 1 found in patients with macular degeneration disrupts photoreceptor disk morphogenesis in mice. Journal of Clinical Investigation, 2008, 118, 2908-16.	8.2	194
107	Live Imaging at the Onset of Cortical Neurogenesis Reveals Differential Appearance of the Neuronal Phenotype in Apical versus Basal Progenitor Progeny. PLoS ONE, 2008, 3, e2388.	2.5	157
108	Midbody and primary cilium of neural progenitors release extracellular membrane particles enriched in the stem cell marker prominin-1. Journal of Cell Biology, 2007, 176, 483-495.	5.2	262

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109	Prominin-2 is a cholesterol-binding protein associated with apical and basolateral plasmalemmal protrusions in polarized epithelial cells and released into urine. Cell and Tissue Research, 2007, 328, 31-47.	2.9	70
110	The cell biology of neurogenesis. Nature Reviews Molecular Cell Biology, 2005, 6, 777-788.	37.0	1,809
111	Symmetric versus asymmetric cell division during neurogenesis in the developing vertebrate central nervous system. Current Opinion in Cell Biology, 2005, 17, 648-657.	5.4	248
112	Selective Lengthening of the Cell Cycle in the Neurogenic Subpopulation of Neural Progenitor Cells during Mouse Brain Development. Journal of Neuroscience, 2005, 25, 6533-6538.	3.6	351
113	Release of extracellular membrane particles carrying the stem cell marker prominin-1 (CD133) from neural progenitors and other epithelial cells. Journal of Cell Science, 2005, 118, 2849-2858.	2.0	415
114	Neurons arise in the basal neuroepithelium of the early mammalian telencephalon: A major site of neurogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3196-3201.	7.1	859
115	Asymmetric distribution of the apical plasma membrane during neurogenic divisions of mammalian neuroepithelial cells. EMBO Journal, 2004, 23, 2314-2324.	7.8	387
116	Characterization of Prominin-2, a New Member of the Prominin Family of Pentaspan Membrane Glycoproteins. Journal of Biological Chemistry, 2003, 278, 8586-8596.	3.4	106
117	An inhibition of cyclin-dependent kinases that lengthens, but does not arrest, neuroepithelial cell cycle induces premature neurogenesis. Journal of Cell Science, 2003, 116, 4947-4955.	2.0	315
118	Prominin: A Story of Cholesterol, Plasma Membrane Protrusions and Human Pathology. Traffic, 2001, 2, 82-91.	2.7	274
119	Cholesterol is Required for the Formation of Regulated and Constitutive Secretory Vesicles from the <i>trans</i>â€Golgi Network. Traffic, 2000, 1, 952-962.	2.7	126
120	Retention of prominin in microvilli reveals distinct cholesterol-based lipid micro-domains in the apical plasma membrane. Nature Cell Biology, 2000, 2, 582-592.	10.3	530
121	Synaptic Vesicle Biogenesis. Annual Review of Cell and Developmental Biology, 1999, 15, 733-798.	9.4	179
122	Loss of Occludin and Functional Tight Junctions, but Not ZO-1, during Neural Tube Closureâ€”Remodeling of the Neuroepithelium Prior to Neurogenesis. Developmental Biology, 1996, 180, 664-679.	2.0	252
123	Expression of Tyrosine-Sulfated Secretory Proteins in Xenopus laevis Oocytes. Differential Export of Constitutive and Regulated Proteins. FEBS Journal, 1996, 239, 111-116.	0.2	2
124	Trimeric G-proteins of thetrans-Golgi network are involved in the formation of constitutive secretory vesicles and immature secretory granules. FEBS Letters, 1991, 294, 239-243.	2.8	100