

# Werner Kilb

## List of Publications by Year in descending order

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83  
papers

4,108  
citations

117625

34  
h-index

128289

60  
g-index

87  
all docs

87  
docs citations

87  
times ranked

3920  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coincident glutamatergic depolarizations enhance GABA <sub>A</sub> receptor-dependent Cl <sup>-</sup> influx in mature and suppress Cl <sup>-</sup> efflux in immature neurons. <i>PLoS Computational Biology</i> , 2021, 17, e1008573.	3.2	13
2	Optogenetically Controlled Activity Pattern Determines Survival Rate of Developing Neocortical Neurons. <i>International Journal of Molecular Sciences</i> , 2021, 22, 6575.	4.1	13
3	TRESK channel contributes to depolarization-induced shunting inhibition and modulates epileptic seizures. <i>Cell Reports</i> , 2021, 36, 109404.	6.4	8
4	Modelling the spatial and temporal constraints of the GABAergic influence on neuronal excitability. <i>PLoS Computational Biology</i> , 2021, 17, e1009199.	3.2	6
5	When Are Depolarizing GABAergic Responses Excitatory?. <i>Frontiers in Molecular Neuroscience</i> , 2021, 14, 747835.	2.9	20
6	Cajal's "Retzius and subplate cells: transient cortical neurons and circuits with long-term impact. , 2020, , 485-505.		1
7	NKCC-1 mediated Cl <sup>-</sup> uptake in immature CA3 pyramidal neurons is sufficient to compensate phasic GABAergic inputs. <i>Scientific Reports</i> , 2020, 10, 18399.	3.3	5
8	The relation between neuronal chloride transporter activities, GABA inhibition, and neuronal activity. , 2020, , 43-57.		3
9	Taurine potentiates the anticonvulsive effect of the GABA <sub>A</sub> agonist muscimol and pentobarbital in the immature mouse hippocampus. <i>Epilepsia</i> , 2019, 60, 464-474.	5.1	11
10	Gadd45 <sup>1±</sup> modulates aversive learning through posttranscriptional regulation of memory-related mRNA. <i>EMBO Reports</i> , 2019, 20, .	4.5	11
11	Interactions between Membrane Resistance, GABA-A Receptor Properties, Bicarbonate Dynamics and Cl <sup>-</sup> -Transport Shape Activity-Dependent Changes of Intracellular Cl <sup>-</sup> Concentration. <i>International Journal of Molecular Sciences</i> , 2019, 20, 1416.	4.1	16
12	Allopregnanolone augments epileptiform activity of an in-vitro mouse hippocampal preparation in the first postnatal week. <i>Epilepsy Research</i> , 2019, 157, 106196.	1.6	3
13	Coincident Activation of Glutamate Receptors Enhances GABA <sub>A</sub> Receptor-Induced Ionic Plasticity of the Intracellular Cl <sup>-</sup> -Concentration in Dissociated Neuronal Cultures. <i>Frontiers in Cellular Neuroscience</i> , 2019, 13, 497.	3.7	6
14	Autism Related Neuroligin-4 Knockout Impairs Intracortical Processing but not Sensory Inputs in Mouse Barrel Cortex. <i>Cerebral Cortex</i> , 2018, 28, 2873-2886.	2.9	24
15	Giant Depolarizing Potentials Trigger Transient Changes in the Intracellular Cl <sup>-</sup> Concentration in CA3 Pyramidal Neurons of the Immature Mouse Hippocampus. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 420.	3.7	19
16	The Superior Function of the Subplate in Early Neocortical Development. <i>Frontiers in Neuroanatomy</i> , 2018, 12, 97.	1.7	60
17	Development of the whisker-to-barrel cortex system. <i>Current Opinion in Neurobiology</i> , 2018, 53, 29-34.	4.2	27
18	Neocortical Layer 6B as a Remnant of the Subplate - A Morphological Comparison. <i>Cerebral Cortex</i> , 2017, 27, bhv279.	2.9	56

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19	Putative Role of Taurine as Neurotransmitter During Perinatal Cortical Development. <i>Advances in Experimental Medicine and Biology</i> , 2017, 975 Pt 1, 281-292.	1.6	8
20	Homeostatic interplay between electrical activity and neuronal apoptosis in the developing neocortex. <i>Neuroscience</i> , 2017, 358, 190-200.	2.3	49
21	Taurine as an Essential Neuromodulator during Perinatal Cortical Development. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 328.	3.7	55
22	Modulation of Neocortical Development by Early Neuronal Activity: Physiology and Pathophysiology. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 379.	3.7	63
23	Electrical activity controls area-specific expression of neuronal apoptosis in the mouse developing cerebral cortex. <i>ELife</i> , 2017, 6, .	6.0	91
24	Spindle Bursts in Neonatal Rat Cerebral Cortex. <i>Neural Plasticity</i> , 2016, 2016, 1-11.	2.2	49
25	Spontaneous Neuronal Activity in Developing Neocortical Networks: From Single Cells to Large-Scale Interactions. <i>Frontiers in Neural Circuits</i> , 2016, 10, 40.	2.8	201
26	Cajal-Retzius cells: organizers of cortical development. <i>E-Neuroforum</i> , 2016, 22, 82-88.	0.1	1
27	Propagation of spontaneous slow-wave activity across columns and layers of the adult rat barrel cortex in vivo. <i>Brain Structure and Function</i> , 2016, 221, 4429-4449.	2.3	30
28	Cajal-Retzius cells: organizers of cortical development. <i>E-Neuroforum</i> , 2016, 7, 82-88.	0.1	5
29	Cannabinoid receptor-interacting protein Crip1a modulates CB1 receptor signaling in mouse hippocampus. <i>Brain Structure and Function</i> , 2016, 221, 2061-2074.	2.3	33
30	Response: "Commentary: Comparison of spike parameters from optically identified GABAergic and glutamatergic neurons in sparse cortical cultures". <i>Frontiers in Cellular Neuroscience</i> , 2015, 9, 224.	3.7	0
31	Commentary: "Nitric oxide releases Cl <sup>-</sup> from acidic organelles in retinal amacrine cells". <i>Frontiers in Cellular Neuroscience</i> , 2015, 9, 401.	3.7	0
32	High Stimulus-Related Information in Barrel Cortex Inhibitory Interneurons. <i>PLoS Computational Biology</i> , 2015, 11, e1004121.	3.2	23
33	Laminar and Columnar Structure of Sensory-Evoked Multineuronal Spike Sequences in Adult Rat Barrel Cortex In Vivo. <i>Cerebral Cortex</i> , 2015, 25, 2001-2021.	2.9	82
34	Taurine activates GABAergic networks in the neocortex of immature mice. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 26.	3.7	16
35	Activity-dependent endogenous taurine release facilitates excitatory neurotransmission in the neocortical marginal zone of neonatal rats. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 33.	3.7	17
36	Sensory-Evoked and Spontaneous Gamma and Spindle Bursts in Neonatal Rat Motor Cortex. <i>Journal of Neuroscience</i> , 2014, 34, 10870-10883.	3.6	84

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37	Comment on "Local impermeant anions establish the neuronal chloride concentration", Science, 2014, 345, 1130-1130.	12.6	15
38	Malformations of Cortical Development and Neocortical Focus. International Review of Neurobiology, 2014, 114, 35-61.	2.0	11
39	Resonance properties of GABAergic interneurons in immature GAD67-GFP mouse neocortex. Brain Research, 2014, 1548, 1-11.	2.2	10
40	Early GABAergic circuitry in the cerebral cortex. Current Opinion in Neurobiology, 2014, 26, 72-78.	4.2	76
41	Activation of glycine receptors modulates spontaneous epileptiform activity in the immature rat hippocampus. Journal of Physiology, 2014, 592, 2153-2168.	2.9	30
42	Inhibition of different GABA transporter systems is required to attenuate epileptiform activity in the CA3 region of the immature rat hippocampus. Epilepsy Research, 2014, 108, 182-189.	1.6	5
43	Comparison of spike parameters from optically identified GABAergic and glutamatergic neurons in sparse cortical cultures. Frontiers in Cellular Neuroscience, 2014, 8, 460.	3.7	48
44	Thalamic Network Oscillations Synchronize Ontogenetic Columns in the Newborn Rat Barrel Cortex. Cerebral Cortex, 2013, 23, 1299-1316.	2.9	157
45	Role of tonic GABAergic currents during pre- and early postnatal rodent development. Frontiers in Neural Circuits, 2013, 7, 139.	2.8	57
46	Long-Term Potentiation in the Neonatal Rat Barrel Cortex In Vivo. Journal of Neuroscience, 2012, 32, 9511-9516.	3.6	43
47	Development of the GABAergic System from Birth to Adolescence. Neuroscientist, 2012, 18, 613-630.	3.5	145
48	Dopaminergic modulation of low $Mg^{2+}$ -induced epileptiform activity in the intact hippocampus of the newborn mouse in vitro. Journal of Neuroscience Research, 2012, 90, 2020-2033.	2.9	6
49	Phasic GABA <sub>A</sub> -receptor activation is required to suppress epileptiform activity in the CA3 region of the immature rat hippocampus. Epilepsia, 2012, 53, 888-896.	5.1	19
50	Resonance properties of different neuronal populations in the immature mouse neocortex. European Journal of Neuroscience, 2012, 36, 2753-2762.	2.6	15
51	Intact In Vitro Preparations of the Neonatal Rodent Cortex: Analysis of Cellular Properties and Network Activity. Neuromethods, 2012, , 301-314.	0.3	12
52	Glycine receptors influence radial migration in the embryonic mouse neocortex. NeuroReport, 2011, 22, 509-513.	1.2	21
53	Electrical activity patterns and the functional maturation of the neocortex. European Journal of Neuroscience, 2011, 34, 1677-1686.	2.6	116
54	The expression mechanism of the residual LTP in the CA1 region of BDNF k.o. mice is insensitive to NO synthase inhibition. Brain Research, 2011, 1391, 14-23.	2.2	10

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55	Activity-dependent scaling of GABAergic excitation by dynamic $Cl^-$ changes in Cajal-Retzius cells. Pflugers Archiv European Journal of Physiology, 2011, 461, 557-565.	2.8	26
56	Methylxanthine-evoked seizure-like perturbation of isolated newborn rat hippocampal and cortical networks. FASEB Journal, 2011, 25, 1b522.	0.5	0
57	Intrinsic activation of GABA <sub>A</sub> receptors suppresses epileptiform activity in the cerebral cortex of immature mice. Epilepsia, 2010, 51, 1483-1492.	5.1	14
58	Self-organization of repetitive spike patterns in developing neuronal networks <i>in vitro</i> . European Journal of Neuroscience, 2010, 32, 1289-1299.	2.6	75
59	Electrophysiological and morphological properties of Cajal-Retzius cells with different ontogenetic origins. Neuroscience, 2010, 167, 724-734.	2.3	32
60	Subplate cells: amplifiers of neuronal activity in the developing cerebral cortex. Frontiers in Neuroanatomy, 2009, 3, 19.	1.7	90
61	Glycine Receptors Mediate Excitation of Subplate Neurons in Neonatal Rat Cerebral Cortex. Journal of Neurophysiology, 2008, 100, 698-707.	1.8	34
62	Kinetic Properties of $Cl^-$ Uptake Mediated by $Na^+$ -Dependent $K^+$ - $2Cl^-$ Cotransport in Immature Rat Neocortical Neurons. Journal of Neuroscience, 2007, 27, 8616-8627.	3.6	150
63	Model-specific effects of bumetanide on epileptiform activity in the in-vitro intact hippocampus of the newborn mouse. Neuropharmacology, 2007, 53, 524-533.	4.1	82
64	Changes in the expression of cation- $Cl^-$ cotransporters, NKCC1 and KCC2, during cortical malformation induced by neonatal freeze-lesion. Neuroscience Research, 2007, 59, 288-295.	1.9	40
65	Rapid developmental switch in the mechanisms driving early cortical columnar networks. E-Neuroforum, 2006, 12, 203-206.	0.1	0
66	Rapid developmental switch in the mechanisms driving early cortical columnar networks. Nature, 2006, 439, 79-83.	27.8	296
67	Early developmental alterations of low-Mg <sup>2+</sup> -induced epileptiform activity in the intact corticohippocampal formation of the newborn mouse in vitro. Brain Research, 2006, 1077, 170-177.	2.2	24
68	Hypoosmolar conditions reduce extracellular volume fraction and enhance epileptiform activity in the CA3 region of the immature rat hippocampus. Journal of Neuroscience Research, 2006, 84, 119-129.	2.9	56
69	GABA-A Receptors Regulate Neocortical Neuronal Migration In Vitro and In Vivo. Cerebral Cortex, 2006, 17, 138-148.	2.9	118
70	Neuronal precursor-specific activity of a human doublecortin regulatory sequence. Journal of Neurochemistry, 2005, 92, 264-282.	3.9	87
71	Neonatal NMDA Receptor Blockade Disturbs Neuronal Migration in Rat Somatosensory Cortex In Vivo. Cerebral Cortex, 2004, 15, 349-358.	2.9	69
72	Altered morphological and electrophysiological properties of Cajal-Retzius cells in cerebral cortex of embryonic Presenilin-1 knockout mice. European Journal of Neuroscience, 2004, 20, 2749-2756.	2.6	20

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73	Cl <sup>sup&gt;âˆ“&lt;/sup&gt; uptake promoting depolarizing GABA actions in immature rat neocortical neurones is mediated by NKCC1. <i>Journal of Physiology</i>, 2004, 557, 829-841.</sup>	2.9	476
74	Cellular physiology of the neonatal rat cerebral cortex. <i>Brain Research Bulletin</i> , 2003, 60, 345-353.	3.0	37
75	Carbachol-induced Network Oscillations in the Intact Cerebral Cortex of the Newborn Rat. <i>Cerebral Cortex</i> , 2003, 13, 409-421.	2.9	37
76	Layer-specific expression of Cl <sup>âˆ“</sup> transporters and differential [Cl <sup>âˆ“</sup> ] <sub>i</sub> in newborn rat cortex. <i>NeuroReport</i> , 2002, 13, 2433-2437.	1.2	56
77	Functional Synaptic Projections onto Subplate Neurons in Neonatal Rat Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2002, 22, 7165-7176.	3.6	149
78	Feedback control of intracellular pH by means of iontophoretic H <sup>+</sup> /OH <sup>âˆ“</sup> injection. <i>Pflugers Archiv European Journal of Physiology</i> , 2001, 443, 54-60.	2.8	0
79	Spontaneous GABAergic postsynaptic currents in Cajal-Retzius cells in neonatal rat cerebral cortex. <i>European Journal of Neuroscience</i> , 2001, 13, 1387-1390.	2.6	56
80	Cellular physiology of the neonatal rat cerebral cortex: Intrinsic membrane properties, sodium and calcium currents. <i>Journal of Neuroscience Research</i> , 2000, 62, 574-584.	2.9	90
81	Characterization of a Hyperpolarization-Activated Inward Current in Cajal-Retzius Cells in Rat Neonatal Neocortex. <i>Journal of Neurophysiology</i> , 2000, 84, 1681-1691.	1.8	57
82	Mechanism of the kainate-induced intracellular acidification in leech Retzius neurons. <i>Brain Research</i> , 1999, 824, 168-182.	2.2	12
83	Ultramicroelectrodes for membrane research. <i>Electrochimica Acta</i> , 1997, 42, 3197-3205.	5.2	16