Heidrun Potschka

List of Publications by Citations

136 papers	6,725 citations	41 h-index	80 g-index
145 ext. papers	7,769 ext. citations	4.9 avg, IF	6.16 L-index

#	Paper	IF	Citations
136	Drug resistance in brain diseases and the role of drug efflux transporters. *Nature Reviews Neuroscience*, **2005**, 6, 591-602	13.5	695
135	Blood-brain barrier active efflux transporters: ATP-binding cassette gene family. *NeuroRx*, **2005**, 2, 86-98		563
134	Role of drug efflux transporters in the brain for drug disposition and treatment of brain diseases. *Progress in Neurobiology*, **2005**, 76, 22-76	10.9	481
133	P-Glycoprotein-mediated efflux of phenobarbital, lamotrigine, and felbamate at the blood-brain barrier: evidence from microdialysis experiments in rats. *Neuroscience Letters*, **2002**, 327, 173-6	3.3	204
132	Multidrug resistance protein MRP2 contributes to blood-brain barrier function and restricts antiepileptic drug activity. *Journal of Pharmacology and Experimental Therapeutics*, **2003**, 306, 124-31	4.7	203
131	Differences in the transport of the antiepileptic drugs phenytoin, levetiracetam and carbamazepine by human and mouse P-glycoprotein. *Neuropharmacology*, **2007**, 52, 333-46	5.5	198
130	Seizure-induced up-regulation of P-glycoprotein at the blood-brain barrier through glutamate and cyclooxygenase-2 signaling. *Molecular Pharmacology*, **2008**, 73, 1444-53	4.3	191
129	P-glycoprotein and multidrug resistance-associated protein are involved in the regulation of extracellular levels of the major antiepileptic drug carbamazepine in the brain. *NeuroReport*, **2001**, 12, 3557-60	1.7	183
128	In vivo evidence for P-glycoprotein-mediated transport of phenytoin at the blood-brain barrier of rats. *Epilepsia*, **2001**, 42, 1231-40	6.4	168
127	Repeated low-dose treatment of rats with pilocarpine: low mortality but high proportion of rats developing epilepsy. *Epilepsy Research*, **2001**, 46, 111-9	3	150
126	International veterinary epilepsy task force consensus report on epilepsy definition, classification and terminology in companion animals. *BMC Veterinary Research*, **2015**, 11, 182	2.7	149
125	Valproic acid is not a substrate for P-glycoprotein or multidrug resistance proteins 1 and 2 in a number of in vitro and in vivo transport assays. *Journal of Pharmacology and Experimental Therapeutics*, **2007**, 320, 331-43	4.7	138
124	Effects of the novel antiepileptic drug levetiracetam on spontaneous recurrent seizures in the rat pilocarpine model of temporal lobe epilepsy. *Epilepsia*, **2002**, 43, 350-7	6.4	122
123	Drug Resistance in Epilepsy: Clinical Impact, Potential Mechanisms, and New Innovative Treatment Options. *Pharmacological Reviews*, **2020**, 72, 606-638	22.5	121
122	International veterinary epilepsy task force consensus proposal: diagnostic approach to epilepsy in dogs. *BMC Veterinary Research*, **2015**, 11, 148	2.7	116
121	Epileptogenesis and neuropathology after different types of status epilepticus induced by prolonged electrical stimulation of the basolateral amygdala in rats. *Epilepsy Research*, **2003**, 55, 83-103	3	114
120	COX-2 inhibition controls P-glycoprotein expression and promotes brain delivery of phenytoin in chronic epileptic rats. *Neuropharmacology*, **2010**, 58, 404-12	5.5	101

119	Prevention of seizure-induced up-regulation of endothelial P-glycoprotein by COX-2 inhibition. *Neuropharmacology*, **2009**, 56, 849-55	5.5	100
118	Immunohistochemical localization of P-glycoprotein in rat brain and detection of its increased expression by seizures are sensitive to fixation and staining variables. *Journal of Histochemistry and Cytochemistry*, **2005**, 53, 517-31	3.4	99
117	Transient increase of P-glycoprotein expression in endothelium and parenchyma of limbic brain regions in the kainate model of temporal lobe epilepsy. *Epilepsy Research*, **2002**, 51, 257-68	3	93
116	Targeting prostaglandin E2 EP1 receptors prevents seizure-associated P-glycoprotein up-regulation. *Journal of Pharmacology and Experimental Therapeutics*, **2009**, 330, 939-47	4.7	79
115	Modulating P-glycoprotein regulation: future perspectives for pharmacoresistant epilepsies?. *Epilepsia*, **2010**, 51, 1333-47	6.4	79
114	Increased expression of the multidrug transporter P-glycoprotein in limbic brain regions after amygdala-kindled seizures in rats. *Epilepsy Research*, **2004**, 58, 67-79	3	78
113	Neurogenesis in the adult rat piriform cortex. *NeuroReport*, **2006**, 17, 571-4	1.7	74
112	Canine epilepsy as a translational model?. *Epilepsia*, **2013**, 54, 571-9	6.4	72
111	Finding a better drug for epilepsy: antiepileptogenesis targets. *Epilepsia*, **2012**, 53, 1868-76	6.4	68
110	International Veterinary Epilepsy Task Force consensus proposal: medical treatment of canine epilepsy in Europe. *BMC Veterinary Research*, **2015**, 11, 176	2.7	67
109	Prophylactic treatment with levetiracetam after status epilepticus: lack of effect on epileptogenesis, neuronal damage, and behavioral alterations in rats. *Neuropharmacology*, **2007**, 53, 207-21	5.5	64
108	Pharmacoresistance and expression of multidrug transporter P-glycoprotein in kindled rats. *NeuroReport*, **2004**, 15, 1657-61	1.7	61
107	Role of CNS efflux drug transporters in antiepileptic drug delivery: overcoming CNS efflux drug transport. *Advanced Drug Delivery Reviews*, **2012**, 64, 943-52	18.5	60
106	Targeting epileptogenesis-associated induction of neurogenesis by enzymatic depolysialylation of NCAM counteracts spatial learning dysfunction but fails to impact epilepsy development. *Journal of Neurochemistry*, **2008**, 105, 389-400	6	57
105	Anticonvulsant and proconvulsant effects of tramadol, its enantiomers and its M1 metabolite in the rat kindling model of epilepsy. *British Journal of Pharmacology*, **2000**, 131, 203-12	8.6	57
104	Expression of the multidrug transporter P-glycoprotein in brain capillary endothelial cells and brain parenchyma of amygdala-kindled rats. *Epilepsia*, **2002**, 43, 675-84	6.4	55
103	Effects of the novel antiepileptic drug lacosamide on the development of amygdala kindling in rats. *Epilepsia*, **2006**, 47, 1803-9	6.4	54
102	Effect of aging on neurogenesis in the canine brain. *Aging Cell*, **2008**, 7, 368-74	9.9	53

101	Proteomic profiling of epileptogenesis in a rat model: Focus on inflammation. *Brain, Behavior, and Immunity*, **2016**, 53, 138-158	16.6	46
100	Anticonvulsant efficacy of the low-affinity partial benzodiazepine receptor agonist ELB 138 in a dog seizure model and in epileptic dogs with spontaneously recurrent seizures. *Epilepsia*, **2004**, 45, 1228-39	6.4	46
99	Targeting regulation of ABC efflux transporters in brain diseases: a novel therapeutic approach. *Pharmacology & Therapeutics*, **2010**, 125, 118-27	13.9	44
98	Impact of the PSA-NCAM system on pathophysiology in a chronic rodent model of temporal lobe epilepsy. *Neurobiology of Disease*, **2007**, 27, 54-66	7.5	44
97	N-acetyl-L-leucine accelerates vestibular compensation after unilateral labyrinthectomy by action in the cerebellum and thalamus. *PLoS ONE*, **2015**, 10, e0120891	3.7	43
96	Uptake and binding of the serotonin 5-HT1A antagonist [18F]-MPPF in brain of rats: effects of the novel P-glycoprotein inhibitor tariquidar. *NeuroImage*, **2010**, 49, 1406-15	7.9	41
95	Imaging of P-glycoprotein-mediated pharmacoresistance in the hippocampus: proof-of-concept in a chronic rat model of temporal lobe epilepsy. *Epilepsia*, **2010**, 51, 1780-90	6.4	39
94	International veterinary epilepsy task force consensus proposal: outcome of therapeutic interventions in canine and feline epilepsy. *BMC Veterinary Research*, **2015**, 11, 177	2.7	37
93	Lack of effects of prolonged treatment with phenobarbital or phenytoin on the expression of P-glycoprotein in various rat brain regions. *European Journal of Pharmacology*, **2002**, 451, 149-55	5.3	37
92	COVID-19 and seizures: Is there a link?. *Epilepsia*, **2020**, 61, 1840-1853	6.4	36
91	Animal models of drug-resistant epilepsy. *Epileptic Disorders*, **2012**, 14, 226-34	1.9	35
90	Corneal kindling in mice: behavioral and pharmacological differences to conventional kindling. *Epilepsy Research*, **1999**, 37, 109-20	3	35
89	(R)-[11C]PK11195 brain uptake as a biomarker of inflammation and antiepileptic drug resistance: evaluation in a rat epilepsy model. *Neuropharmacology*, **2014**, 85, 104-12	5.5	34
88	Dynamic regulation of P-glycoprotein in human brain capillaries. *Molecular Pharmaceutics*, **2013**, 10, 3333-41	5.6	33
87	Targeting the endocannabinoid system in the amygdala kindling model of temporal lobe epilepsy in mice. *Epilepsia*, **2011**, 52, e62-5	6.4	32
86	Targeting the brain--surmounting or bypassing the blood-brain barrier. *Handbook of Experimental Pharmacology*, **2010**, 411-31	3.2	32
85	Transporter hypothesis of drug-resistant epilepsy: challenges for pharmacogenetic approaches. *Pharmacogenomics*, **2010**, 11, 1427-38	2.6	32
84	Lacosamide treatment following status epilepticus attenuates neuronal cell loss and alterations in hippocampal neurogenesis in a rat electrical status epilepticus model. *Epilepsia*, **2013**, 54, 1176-85	6.4	31

83	Neuroinflammation imaging markers for epileptogenesis. *Epilepsia*, **2017**, 58 Suppl 3, 11-19	6.4	30
82	International Veterinary Epilepsy Task Force recommendations for a veterinary epilepsy-specific MRI protocol. *BMC Veterinary Research*, **2015**, 11, 194	2.7	30
81	A comparison of extracellular levels of phenytoin in amygdala and hippocampus of kindled and non-kindled rats. *NeuroReport*, **2002**, 13, 167-71	1.7	27
80	Modulation of neurogenesis by targeted hippocampal irradiation fails to affect kindling progression. *Hippocampus*, **2011**, 21, 866-76	3.5	26
79	Perampanel: Does it have broad-spectrum potential?. *Epilepsia*, **2019**, 60 Suppl 1, 22-36	6.4	23
78	The mixed blessing of treating symptoms in acute vestibular failure--evidence from a 4-aminopyridine experiment. *Experimental Neurology*, **2014**, 261, 638-45	5.7	23
77	The novel antiepileptic drug imepitoin compares favourably to other GABA-mimetic drugs in a seizure threshold model in mice and dogs. *Pharmacological Research*, **2013**, 77, 39-46	10.2	22
76	Seizure occurrence in dogs under primary veterinary care in the UK: prevalence and risk factors. *Journal of Veterinary Internal Medicine*, **2018**, 32, 1665-1676	3.1	22
75	WONOEP appraisal: Imaging biomarkers in epilepsy. *Epilepsia*, **2017**, 58, 315-330	6.4	21
74	Identification of brain regions predicting epileptogenesis by serial [F]GE-180 positron emission tomography imaging of neuroinflammation in a rat model of temporal lobe epilepsy. *NeuroImage: Clinical*, **2017**, 15, 35-44	5.3	20
73	Toward evidence-based severity assessment in rat models with repeated seizures: I. Electrical kindling. *Epilepsia*, **2018**, 59, 765-777	6.4	20
72	[11C]quinidine and [11C]laniquidar PET imaging in a chronic rodent epilepsy model: impact of epilepsy and drug-responsiveness. *Nuclear Medicine and Biology*, **2013**, 40, 764-75	2.1	20
71	Glutamate-mediated upregulation of the multidrug resistance protein 2 in porcine and human brain capillaries. *Journal of Pharmacology and Experimental Therapeutics*, **2015**, 352, 368-78	4.7	20
70	Targeting the prostaglandin E2 EP1 receptor and cyclooxygenase-2 in the amygdala kindling model in mice. *Epilepsy Research*, **2010**, 91, 57-65	3	20
69	Defining body-weight reduction as a humane endpoint: a critical appraisal. *Laboratory Animals*, **2020**, 54, 99-110	2.6	20
68	A systems level analysis of epileptogenesis-associated proteome alterations. *Neurobiology of Disease*, **2017**, 105, 164-178	7.5	18
67	Glutamate-Mediated Down-Regulation of the Multidrug-Resistance Protein BCRP/ABCG2 in Porcine and Human Brain Capillaries. *Molecular Pharmaceutics*, **2015**, 12, 2049-60	5.6	18
66	Add-on treatment with verapamil in pharmacoresistant canine epilepsy. *Epilepsia*, **2011**, 52, 284-91	6.4	18

65	The erythropoietin-derived peptide mimetic pHBSP affects cellular and cognitive consequences in a rat post-status epilepticus model. *Epilepsia*, **2011**, 52, 2333-43	6.4	18
64	Synergism of perampanel and zonisamide in the rat amygdala kindling model of temporal lobe epilepsy. *Epilepsia*, **2016**, 57, 638-47	6.4	18
63	Proteomic profiling of epileptogenesis in a rat model: Focus on cell stress, extracellular matrix and angiogenesis. *Neurobiology of Disease*, **2018**, 112, 119-135	7.5	17
62	Effect of eslicarbazepine acetate in the corneal kindling progression and the amygdala kindling model of temporal lobe epilepsy. *Epilepsy Research*, **2014**, 108, 212-22	3	17
61	International veterinary epilepsy task force recommendations for systematic sampling and processing of brains from epileptic dogs and cats. *BMC Veterinary Research*, **2015**, 11, 216	2.7	17
60	Cellular localization of Y-box binding protein 1 in brain tissue of rats, macaques, and humans. *BMC Neuroscience*, **2009**, 10, 28	3.2	16
59	Systematic review of guidelines for internal validity in the design, conduct and analysis of preclinical biomedical experiments involving laboratory animals.. *BMJ Open Science*, **2020**, 4, e100046	4.6	16
58	Targeting of microglial KCa3.1 channels by TRAM-34 exacerbates hippocampal neurodegeneration and does not affect ictogenesis and epileptogenesis in chronic temporal lobe epilepsy models. *European Journal of Pharmacology*, **2014**, 740, 72-80	5.3	15
57	Pharmacoresistance. *Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn*, **2012**, 108, 741-57	3	15
56	Impact of the erythropoietin-derived peptide mimetic Epotris on the histopathological consequences of status epilepticus. *Epilepsy Research*, **2011**, 96, 241-9	3	15
55	CNS transporters and drug delivery in epilepsy. *Current Pharmaceutical Design*, **2014**, 20, 1534-42	3.3	15
54	Imaging correlates of behavioral impairments: An experimental PET study in the rat pilocarpine epilepsy model. *Neurobiology of Disease*, **2018**, 118, 9-21	7.5	15
53	Minocycline fails to exert antiepileptogenic effects in a rat status epilepticus model. *European Journal of Pharmacology*, **2016**, 771, 29-39	5.3	14
52	Impact of seizure activity on free extracellular phenytoin concentrations in amygdala-kindled rats. *Neuropharmacology*, **2011**, 61, 909-17	5.5	13
51	In vivo down-regulation of mouse brain capillary P-glycoprotein: a preliminary investigation. *Neuroscience Letters*, **2009**, 464, 47-51	3.3	13
50	miRNA-187-3p-Mediated Regulation of the KCNK10/TREK-2 Potassium Channel in a Rat Epilepsy Model. *ACS Chemical Neuroscience*, **2016**, 7, 1585-1594	5.7	12
49	Imaging biomarkers of behavioral impairments: A pilot micro-positron emission tomographic study in a rat electrical post-status epilepticus model. *Epilepsia*, **2018**, 59, 2194-2205	6.4	12
48	Toward evidence-based severity assessment in rat models with repeated seizures: III. Electrical post-status epilepticus model. *Epilepsia*, **2019**, 60, 1539-1551	6.4	11

47	Introduction to the EQIPD quality system. *ELife*, **2021**, 10,	8.9	11
46	Long-term genetic fate mapping of adult generated neurons in a mouse temporal lobe epilepsy model. *Neurobiology of Disease*, **2012**, 48, 454-63	7.5	10
45	Animal and human data: where are our concepts for drug-resistant epilepsy going?. *Epilepsia*, **2013**, 54 Suppl 2, 29-32	6.4	10
44	Electrical but not chemical kindling increases sensitivity to some phencyclidine-like behavioral effects induced by the competitive NMDA receptor antagonist D-CPPene in rats. *European Journal of Pharmacology*, **1998**, 353, 177-89	5.3	10
43	Brain penetration and anticonvulsant efficacy of intranasal phenobarbital in rats. *Epilepsia*, **2008**, 49, 1142-50	6.4	10
42	Disruption of the sodium-dependent citrate transporter SLC13A5 in mice causes alterations in brain citrate levels and neuronal network excitability in the hippocampus. *Neurobiology of Disease*, **2020**, 143, 105018	7.5	9
41	Impact of repeated kindled seizures on heart rate rhythms, heart rate variability, and locomotor activity in rats. *Epilepsy and Behavior*, **2019**, 92, 36-44	3.2	9
40	Toward evidence-based severity assessment in rat models with repeated seizures: II. Chemical post-status epilepticus model. *Epilepsia*, **2019**, 60, 2114-2127	6.4	8
39	Where are we heading? Challenges in evidence-based severity assessment. *Laboratory Animals*, **2020**, 54, 50-62	2.6	8
38	Nest-building performance in rats: impact of vendor, experience, and sex. *Laboratory Animals*, **2020**, 54, 17-25	2.6	8
37	Epileptogenesis-Associated Alterations of Heat Shock Protein 70 in a Rat Post-Status Epilepticus Model. *Neuroscience*, **2019**, 415, 44-58	3.9	7
36	Pre-treatment with the NMDA receptor glycine-binding site antagonist L-701,324 improves pharmacosensitivity in a mouse kindling model. *Epilepsy Research*, **2014**, 108, 634-43	3	7
35	Newborn neurons with hilar basal dendrites hallmark epileptogenic networks. *NeuroReport*, **2007**, 18, 585-9	1.7	7
34	A safe bet? Inter-laboratory variability in behaviour-based severity assessment. *Laboratory Animals*, **2020**, 54, 73-82	2.6	7
33	Drug resistance in epilepsy. *Epilepsia*, **2010**, 51, 91-91	6.4	6
32	Semi-automated generation of pictures for the Mouse Grimace Scale: A multi-laboratory analysis (Part 2). *Laboratory Animals*, **2020**, 54, 92-98	2.6	6
31	Genetic and Pharmacological Targeting of Heat Shock Protein 70 in the Mouse Amygdala-Kindling Model. *ACS Chemical Neuroscience*, **2019**, 10, 1434-1444	5.7	6
30	2017 WONOEP appraisal: Studying epilepsy as a network disease using systems biology approaches. *Epilepsia*, **2019**, 60, 1045-1053	6.4	5

29	Design of composite measure schemes for comparative severity assessment in animal-based neuroscience research: A case study focussed on rat epilepsy models. *PLoS ONE*, **2020**, 15, e0230141	3.7	5
28	The role of new medical treatments for the management of developmental and epileptic encephalopathies: Novel concepts and results. *Epilepsia*, **2021**, 62, 857-873	6.4	5
27	Genetic Modulation of HSPA1A Accelerates Kindling Progression and Exerts Pro-convulsant Effects. *Neuroscience*, **2018**, 386, 108-120	3.9	5
26	Management of COVID-19 in patients with seizures: Mechanisms of action of potential COVID-19 drug treatments and consideration for potential drug-drug interactions with anti-seizure medications. *Epilepsy Research*, **2021**, 174, 106675	3	5
25	Expression regulation and targeting of the peroxisome proliferator-activated receptor following electrically-induced status epilepticus. *Neuroscience Letters*, **2015**, 604, 151-6	3.3	4
24	Polysialic acid affects pathophysiological consequences of status epilepticus. *NeuroReport*, **2010**, 21, 549-53	1.7	4
23	Metabolomic signature of the Dravet syndrome: A genetic mouse model study. *Epilepsia*, **2021**, 62, 2000-2014	6.4	4
22	Proteomic signature of the Dravet syndrome in the genetic Scn1a-A1783V mouse model. *Neurobiology of Disease*, **2021**, 157, 105423	7.5	4
21	Seizures in dogs under primary veterinary care in the United Kingdom: Etiology, diagnostic testing, and clinical management. *Journal of Veterinary Internal Medicine*, **2020**, 34, 2525-2535	3.1	3
20	Molecular alterations of the TLR4-signaling cascade in canine epilepsy. *BMC Veterinary Research*, **2020**, 16, 18	2.7	3
19	Impact of the neural cell adhesion molecule-derived peptide FGL on seizure progression and cellular alterations in the mouse kindling model. *ACS Chemical Neuroscience*, **2014**, 5, 185-93	5.7	3
18	The CNTF-derived peptide mimetic Cintrofin attenuates spatial-learning deficits in a rat post-status epilepticus model. *Neuroscience Letters*, **2013**, 556, 170-5	3.3	3
17	The impact of Scn1a deficiency and ketogenic diet on the intestinal microbiome: A study in a genetic Dravet mouse model. *Epilepsy Research*, **2021**, 178, 106826	3	3
16	Regulation of Alzheimer's disease-associated proteins during epileptogenesis. *Neuroscience*, **2020**, 424, 102-120	3.9	3
15	Profiling the Expression of Endoplasmic Reticulum Stress Associated Heat Shock Proteins in Animal Epilepsy Models. *Neuroscience*, **2020**, 429, 156-172	3.9	3
14	Toward evidence-based severity assessment in mouse models with repeated seizures: I. Electrical kindling. *Epilepsy and Behavior*, **2021**, 115, 107689	3.2	3
13	Microglial ROS production in an electrical rat post-status epilepticus model of epileptogenesis. *Neuroscience Letters*, **2015**, 599, 146-51	3.3	2
12	Impact of the NCAM derived mimetic peptide plannexin on the acute cellular consequences of a status epilepticus. *Neuroscience Letters*, **2011**, 501, 173-8	3.3	2

List of Publications

11	[F]MPPF and [F]FDG PET imaging in rats: impact of transport and restraint stress. *EJNMMI Research*, **2020**, 10, 112	3.6	2
10	Imepitoin for treatment of idiopathic head tremor syndrome in dogs: A randomized, blinded, placebo-controlled study. *Journal of Veterinary Internal Medicine*, **2020**, 34, 2571-2581	3.1	1
9	Development of behavioral patterns in young C57BL/6J mice: a home cage-based study.. *Scientific Reports*, **2022**, 12, 2550	4.9	1
8	Exploratory EEG studies for the assessment of neurological liabilities in conscious dogs in early drug development. *Journal of Pharmacological and Toxicological Methods*, **2019**, 98, 106581	1.7	0
7	The impact of tethered recording techniques on activity and sleep patterns in rats.. *Scientific Reports*, **2022**, 12, 3179	4.9	0
6	Cyclooxygenase-2 Inhibition as an Add-On Strategy in Drug Resistant Epilepsy-A Canine Translational Study.. *Frontiers in Veterinary Science*, **2022**, 9, 864293	3.1	0
5	Naturally Occurring Epilepsy and Status Epilepticus in Dogs **2017**, 387-398		
4	Modulating P-glycoprotein Regulation as a Therapeutic Strategy for Pharmacoresistant Epilepsy **2013**, 225-232		
3	Hippocampal and Septal 5-HT Receptor Expression in Two Rat Models of Temporal Lobe Epilepsy. *Neuroscience*, **2021**, 465, 219-230	3.9	
2	Procedures for Electrical and Chemical Kindling Models in Rats and Mice. *Neuromethods*, **2021**, 103-119	0.4	
1	Targeted Molecular Strategies for Genetic Neurodevelopmental Disorders: Emerging Lessons from Dravet Syndrome.. *Neuroscientist*, **2022**, 10738584221088244	7.6	