Markus WÃ¶hr

List of Publications by Year
in descending order

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122 papers	7,310 citations	66343 42 h-index	60623 81 g-index
131 all docs	131 docs citations	131 times ranked	6865 citing authors

#	Article	IF	Citations
1	Stress revisited: A critical evaluation of the stress concept. Neuroscience and Biobehavioral Reviews, 2011, 35, 1291-1301.	6.1	1,124
2	Reduced Excitatory Neurotransmission and Mild Autism-Relevant Phenotypes in AdolescentShank3Null Mutant Mice. Journal of Neuroscience, 2012, 32, 6525-6541.	3.6	342
3	Affective communication in rodents: ultrasonic vocalizations as a tool for research on emotion and motivation. Cell and Tissue Research, 2013, 354, 81-97.	2.9	294
4	Lack of parvalbumin in mice leads to behavioral deficits relevant to all human autism core symptoms and related neural morphofunctional abnormalities. Translational Psychiatry, 2015, 5, e525-e525.	4.8	231
5	Ultrasonic Communication in Rats: Can Playback of 50-kHz Calls Induce Approach Behavior?. PLoS ONE, 2007, 2, e1365.	2.5	216
6	Effects of experience and context on 50-kHz vocalizations in rats. Physiology and Behavior, 2008, 93, 766-776.	2.1	214
7	Reduction in parvalbumin expression not loss of the parvalbumin-expressing GABA interneuron subpopulation in genetic parvalbumin and shank mouse models of autism. Molecular Brain, 2016, 9, 10.	2.6	208
8	Communication Impairments in Mice Lacking Shank1: Reduced Levels of Ultrasonic Vocalizations and Scent Marking Behavior. PLoS ONE, 2011, 6, e20631.	2.5	196
9	Behavioural methods used in rodent models of autism spectrum disorders: Current standards and new developments. Behavioural Brain Research, 2013, 251, 5-17.	2.2	167
10	Reduced scent marking and ultrasonic vocalizations in the BTBR T+tf/J mouse model of autism. Genes, Brain and Behavior, 2011, 10, 35-43.	2.2	166
11	Overt behavior and ultrasonic vocalization in a fear conditioning paradigm: A doseâ€“response study in the rat. Neurobiology of Learning and Memory, 2005, 84, 228-240.	1.9	157
12	Situational factors, conditions and individual variables which can determine ultrasonic vocalizations in male adult Wistar rats. Behavioural Brain Research, 2007, 182, 208-222.	2.2	155
13	Rat ultrasonic vocalization in aversively motivated situations and the role of individual differences in anxiety-related behavior. Behavioural Brain Research, 2006, 166, 271-280.	2.2	154
14	Playback of 22-kHz and 50-kHz ultrasonic vocalizations induces differential c-fos expression in rat brain. Neuroscience Letters, 2008, 435, 17-23.	2.1	143
15	Phasic Dopamine Release in the Nucleus Accumbens in Response to Pro-Social 50 kHz Ultrasonic Vocalizations in Rats. Journal of Neuroscience, 2014, 34, 10616-10623.	3.6	130
16	Maternal care, isolation-induced infant ultrasonic calling, and their relations to adult anxiety-related behavior in the rat.. Behavioral Neuroscience, 2008, 122, 310-330.	1.2	127
17	Differential effects of social and physical environmental enrichment on brain plasticity, cognition, and ultrasonic communication in rats. Journal of Comparative Neurology, 2016, 524, 1586-1607.	1.6	122
18	Ultrasonic vocalizations in Shank mouse models for autism spectrum disorders: Detailed spectrographic analyses and developmental profiles. Neuroscience and Biobehavioral Reviews, 2014, 43, 199-212.	6.1	115

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19	Developmental delays and reduced pup ultrasonic vocalizations but normal sociability in mice lacking the postsynaptic cell adhesion protein neuroligin2. Behavioural Brain Research, 2013, 251, 50-64.	2.2	110
20	Pro-social ultrasonic communication in rats: Insights from playback studies. Journal of Neuroscience Methods, 2014, 234, 73-81.	2.5	104
21	Neurobiology of the major psychoses: a translational perspective on brain structure and functionâ€”the FOR2107 consortium. European Archives of Psychiatry and Clinical Neuroscience, 2019, 269, 949-962.	3.2	103
22	Effects of Genetic Background, Gender, and Early Environmental Factors on Isolation-Induced Ultrasonic Calling in Mouse Pups: An Embryo-Transfer Study. Behavior Genetics, 2008, 38, 579-595.	2.1	100
23	A coding-independent function of an alternative Ube3a transcript during neuronal development. Nature Neuroscience, 2015, 18, 666-673.	14.8	95
24	Comeback of the Rat in Biomedical Research. ACS Chemical Neuroscience, 2017, 8, 900-903.	3.5	90
25	On the relationships between ultrasonic calling and anxiety-related behavior in rats. Brazilian Journal of Medical and Biological Research, 2012, 45, 337-348.	1.5	86
26	Female urine-induced male mice ultrasonic vocalizations, but not scent-marking, is modulated by social experience. Behavioural Brain Research, 2011, 216, 19-28.	2.2	85
27	Developmental social communication deficits in the Shank3 rat model of phelanâ€mcdermid syndrome and autism spectrum disorder. Autism Research, 2018, 11, 587-601.	3.8	78
28	Ultrasonic communication in rats: Effects of morphine and naloxone on vocal and behavioral responses to playback of 50-kHz vocalizations. Pharmacology Biochemistry and Behavior, 2009, 94, 285-295.	2.9	77
29	Rodent ultrasonic communication: Male prosocial 50-kHz ultrasonic vocalizations elicit social approach behavior in female rats (Rattus norvegicus).. Journal of Comparative Psychology (Washington, D C: 1983), 2014, 128, 56-64.	0.5	75
30	Repetitive behaviors in the Shank1 knockout mouse model for autism spectrum disorder: Developmental aspects and effects of social context. Journal of Neuroscience Methods, 2014, 234, 92-100.	2.5	65
31	Increased affective ultrasonic communication during fear learning in adult male rats exposed to maternal immune activation. Journal of Psychiatric Research, 2012, 46, 1199-1205.	3.1	64
32	Pro-social 50-kHz ultrasonic communication in rats: post-weaning but not post-adolescent social isolation leads to social impairmentsâ€”phenotypic rescue by re-socialization. Frontiers in Behavioral Neuroscience, 2015, 9, 102.	2.0	63
33	Juvenile stress potentiates aversive 22-kHz ultrasonic vocalizations and freezing during auditory fear conditioning in adult male rats. Stress, 2012, 15, 533-544.	1.8	57
34	Early communication deficits in the Shank1 knockout mouse model for autism spectrum disorder: Developmental aspects and effects of social context. Autism Research, 2016, 9, 696-709.	3.8	57
35	Testing social acoustic memory in rats: Effects of stimulus configuration and long-term memory on the induction of social approach behavior by appetitive 50-kHz ultrasonic vocalizations. Neurobiology of Learning and Memory, 2012, 98, 154-164.	1.9	55
36	Endogenous vasopressin, innate anxiety, and the emission of pro-social 50-kHz ultrasonic vocalizations during social play behavior in juvenile rats. Psychoneuroendocrinology, 2015, 56, 35-44.	2.7	55

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37	Reconsidering animal models used to study autism spectrum disorder: Current state and optimizing future. Genes, Brain and Behavior, 2022, 21, e12803.	2.2	55
38	Reduced isolation-induced pup ultrasonic communication in mouse pups lacking brain serotonin. Molecular Autism, 2015, 6, 13.	4.9	54
39	New insights into the relationship of neurogenesis and affect: tickling induces hippocampal cell proliferation in rats emitting appetitive 50-kHz ultrasonic vocalizations. Neuroscience, 2009, 163, 1024-1030.	2.3	53
40	Ultrasonic calling during fear conditioning in the rat: no evidence for an audience effect. Animal Behaviour, 2008, 76, 749-760.	1.9	51
41	Predator odour but not TMT induces 22-kHz ultrasonic vocalizations in rats that lead to defensive behaviours in conspecifics upon replay. Scientific Reports, 2018, 8, 11041.	3.3	51
42	Cacna1c haploinsufficiency leads to pro-social 50-kHz ultrasonic communication deficits in rats. DMM Disease Models and Mechanisms, 2018, 11, .	2.4	51
43	Translational outcomes in a full gene deletion of ubiquitin protein ligase E3A rat model of Angelman syndrome. Translational Psychiatry, 2020, 10, 39.	4.8	50
44	Critical involvement of 5-HT2C receptor function in amphetamine-induced 50-kHz ultrasonic vocalizations in rats. Psychopharmacology, 2015, 232, 1817-1829.	3.1	49
45	Rethinking psychopharmacotherapy: The role of treatment context and brain plasticity in antidepressant and antipsychotic interventions. Neuroscience and Biobehavioral Reviews, 2016, 60, 51-64.	6.1	46
46	From Play to Aggression: High-Frequency 50-kHz Ultrasonic Vocalizations as Play and Appeasement Signals in Rats. Current Topics in Behavioral Neurosciences, 2015, 30, 91-108.	1.7	38
47	Effects of amphetamine on pro-social ultrasonic communication in juvenile rats: Implications for mania models. European Neuropsychopharmacology, 2017, 27, 261-273.	0.7	37
48	Lack of social exploratory activation in male Î¼-opioid receptor KO mice in response to playback of female ultrasonic vocalizations. Social Neuroscience, 2011, 6, 76-87.	1.3	36
49	Ultrasonic communication in rats: appetitive 50-kHz ultrasonic vocalizations as social contact calls. Behavioral Ecology and Sociobiology, 2018, 72, 1.	1.4	36
50	The continued need for animals to advance brain research. Neuron, 2021, 109, 2374-2379.	8.1	36
51	Environmental and Pharmacological Modulation of Amphetamine- Induced 50-kHz Ultrasonic Vocalizations in Rats. Current Neuropharmacology, 2015, 13, 220-232.	2.9	35
52	A placental mammalâ€specific micro <scp>RNA</scp> cluster acts as a natural brake for sociability in mice. EMBO Reports, 2019, 20, .	4.5	35
53	Affective communication in rodents. Behavioural Pharmacology, 2015, 26, 506-521.	1.7	33
54	Aberrant cognitive phenotypes and altered hippocampal BDNF expression related to epigenetic modifications in mice lacking the postâ€synaptic scaffolding protein SHANK1: Implications for autism spectrum disorder. Hippocampus, 2017, 27, 906-919.	1.9	31

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55	Subjecting Dams to Early Life Stress and Perinatal Fluoxetine Treatment Differentially Alters Social Behavior in Young and Adult Rat Offspring. Frontiers in Neuroscience, 2019, 13, 229.	2.8	31
56	Acoustic Communication in Rats: Effects of Social Experiences on Ultrasonic Vocalizations as Socio-affective Signals. Current Topics in Behavioral Neurosciences, 2015, 30, 67-89.	1.7	30
57	Brain serotonin deficiency leads to social communication deficits in mice. Biology Letters, 2015, 11, 20150057.	2.3	29
58	17-Î² estradiol increases parvalbumin levels in Pvalb heterozygous mice and attenuates behavioral phenotypes with relevance to autism core symptoms. Molecular Autism, 2018, 9, 15.	4.9	29
59	Downregulation of the psychiatric susceptibility gene Cacna1c promotes mitochondrial resilience to oxidative stress in neuronal cells. Cell Death Discovery, 2018, 4, 54.	4.7	29
60	Sexâ€dependent effects of Cacna1c haploinsufficiency on juvenile social play behavior and proâ€social 50â€kHz ultrasonic communication in rats. Genes, Brain and Behavior, 2020, 19, e12552.	2.2	29
61	Translational outcomes relevant to neurodevelopmental disorders following early life exposure of rats to chlorpyrifos. Journal of Neurodevelopmental Disorders, 2020, 12, 40.	3.1	29
62	Effects of Cacna1c haploinsufficiency on social interaction behavior and 50-kHz ultrasonic vocalizations in adult female rats. Behavioural Brain Research, 2019, 367, 35-52.	2.2	28
63	Studying Socioâ€Affective Communication in Rats through Playback of Ultrasonic Vocalizations. Current Protocols in Neuroscience, 2016, 75, 8.35.1-8.35.17.	2.6	26
64	Behavioral phenotypes and neurobiological mechanisms in the Shank1 mouse model for autism spectrum disorder: A translational perspective. Behavioural Brain Research, 2018, 352, 46-61.	2.2	25
65	Effect of social odor context on the emission of isolation-induced ultrasonic vocalizations in the BTBR T+tf/J mouse model for autism. Frontiers in Neuroscience, 2015, 9, 73.	2.8	23
66	Evaluation of 50-kHz ultrasonic vocalizations in animal models of mania: Ketamine and lisdexamfetamine-induced hyperlocomotion in rats. European Neuropsychopharmacology, 2016, 26, 1900-1908.	0.7	21
67	Mania-like elevated mood in rats: Enhanced 50-kHz ultrasonic vocalizations after sleep deprivation. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2019, 88, 142-150.	4.8	20
68	Advanced paternal age as a risk factor for neurodevelopmental disorders: a translational study. Molecular Autism, 2020, 11, 54.	4.9	20
69	Alpha-synuclein deficiency affects brain Foxp1 expression and ultrasonic vocalization. Neuroscience, 2010, 166, 785-795.	2.3	19
70	Effects of ketamine on vocal impairment, gait changes, and anhedonia induced by bilateral 6-OHDA infusion into the substantia nigra pars compacta in rats: Therapeutic implications for Parkinsonâ€™s disease. Behavioural Brain Research, 2018, 342, 1-10.	2.2	19
71	Measuring maniaâ€like elevated mood through amphetamineâ€induced 50â€kHz ultrasonic vocalizations in rats. British Journal of Pharmacology, 2022, 179, 4201-4219.	5.4	19
72	Sex-specific effects of Cacna1c haploinsufficiency on object recognition, spatial memory, and reversal learning capabilities in rats. Neurobiology of Learning and Memory, 2018, 155, 543-555.	1.9	18

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73	Immunity and ultrasonic vocalization in rodents. Annals of the New York Academy of Sciences, 2019, 1437, 68-82.	3.8	18
74	Lesions of the rat basolateral amygdala reduce the behavioral response to ultrasonic vocalizations. Behavioural Brain Research, 2020, 378, 112274.	2.2	18
75	Sex differences in the acoustic features of social playâ€induced 50â€kHz ultrasonic vocalizations: A detailed spectrographic analysis in wildâ€type Sprague–Dawley and Cacna1c haploinsufficient rats. Developmental Psychobiology, 2021, 63, 262-276.	1.6	18
76	Rodent ultrasonic communication and its relevance for models of neuropsychiatric disorders. E-Neuroforum, 2010, 16, 71-80.	0.1	16
77	Sex-dependent effects of Cacna1c haploinsufficiency on behavioral inhibition evoked by conspecific alarm signals in rats. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2020, 99, 109849.	4.8	16
78	Awakenings in rats by ultrasounds: A new animal model for paradoxical kinesia. Behavioural Brain Research, 2018, 337, 204-209.	2.2	15
79	Impaired Object Recognition but Normal Social Behavior and Ultrasonic Communication in Cofilin1 Mutant Mice. Frontiers in Behavioral Neuroscience, 2018, 12, 25.	2.0	15
80	Effects of anxiogenic drugs on the emission of 22- and 50-kHz ultrasonic vocalizations in adult rats. Psychopharmacology, 2018, 235, 2435-2445.	3.1	15
81	Communication and social interaction in the cannabinoidâ€type 1 receptor null mouse: Implications for autism spectrum disorder. Autism Research, 2021, 14, 1854-1872.	3.8	15
82	Effect of altricial pup ultrasonic vocalization on maternal behavior. Handbook of Behavioral Neuroscience, 2010, 19, 159-166.	0.7	15
83	Mapping trait-like socio-affective phenotypes in rats through 50-kHz ultrasonic vocalizations. Psychopharmacology, 2018, 235, 83-98.	3.1	14
84	Reduced emission of alarm 22-kHz ultrasonic vocalizations during fear conditioning in rats lacking the serotonin transporter. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2021, 108, 110072.	4.8	14
85	Psychiatric risk gene Cacna1c determines mitochondrial resilience against oxidative stress in neurons. Cell Death and Disease, 2018, 9, 645.	6.3	13
86	Cognitive impairment and autistic-like behaviour in SAPAP4-deficient mice. Translational Psychiatry, 2019, 9, 7.	4.8	13
87	Excessive Laughter-like Vocalizations, Microcephaly, and Translational Outcomes in theUbe3aDeletion Rat Model of Angelman Syndrome. Journal of Neuroscience, 2021, 41, 8801-8814.	3.6	13
88	Autistic-like behavioral effects of prenatal stress in juvenile Fmr1 mice: the relevance of sex differences and gene–environment interactions. Scientific Reports, 2022, 12, 7269.	3.3	13
89	Isolationâ€induced ultrasonic vocalizations in pups: A comparison between Longâ€Evans, Sprague–Dawley, and Wistar rats. Developmental Psychobiology, 2018, 60, 534-543.	1.6	12
90	Response Calls Evoked by Playback of Natural 50-kHz Ultrasonic Vocalizations in Rats. Frontiers in Behavioral Neuroscience, 2021, 15, 812142.	2.0	11

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91	A Wireless, Bidirectional Interface for In Vivo Recording and Stimulation of Neural Activity in Freely Behaving Rats. Journal of Visualized Experiments, 2017, , .	0.3	10
92	Fear Extinction and Predictive Trait-Like Inter-Individual Differences in Rats Lacking the Serotonin Transporter. International Journal of Molecular Sciences, 2021, 22, 7088.	4.1	10
93	Myt1l haploinsufficiency leads to obesity and multifaceted behavioral alterations in mice. Molecular Autism, 2022, 13, 19.	4.9	10
94	Paradoxical kinesia induced by appetitive 50-kHz ultrasonic vocalizations in rats depends on glutamatergic mechanisms in the inferior colliculus. Neuropharmacology, 2018, 135, 172-179.	4.1	9
95	Origins of scale invariance in vocalization sequences and speech. PLoS Computational Biology, 2018, 14, e1005996.	3.2	9
96	Long-term environmental impact on object recognition, spatial memory, and reversal learning capabilities in Cacna1c haploinsufficient rats. Human Molecular Genetics, 2019, 28, 4113-4131.	2.9	9
97	Ultrasonic vocalizations and individual differences in rats performing a Pavlovian conditioned approach task. Behavioural Brain Research, 2021, 398, 112926.	2.2	9
98	Activation of limbic system structures by replay of ultrasonic vocalization in rats. Handbook of Behavioral Neuroscience, 2010, 19, 113-124.	0.7	8
99	Social Behavior and Ultrasonic Vocalizations in a Genetic Rat Model Haploinsufficient for the Cross-Disorder Risk Gene Cacna1c. Brain Sciences, 2021, 11, 724.	2.3	8
100	Limited generalizability, pharmacological modulation, and state-dependency of habituation towards pro-social 50-kHz calls in rats. IScience, 2021, 24, 102426.	4.1	7
101	Playback of 50-kHz ultrasonic vocalizations overcomes psychomotor deficits induced by sub-chronic haloperidol treatment in rats. Psychopharmacology, 2020, 237, 2043-2053.	3.1	6
102	Neurobiology of autism. Behavioural Brain Research, 2013, 251, 1-4.	2.2	5
103	Reduced Efficacy of d-Amphetamine and 3,4-Methylenedioxymethamphetamine in Inducing Hyperactivity in Mice Lacking the Postsynaptic Scaffolding Protein SHANK1. Frontiers in Molecular Neuroscience, 2018, 11, 419.	2.9	5
104	Playback of Ultrasonic Vocalizations to Juvenile and Adult Rats: Behavioral and Neuronal Effects. Handbook of Behavioral Neuroscience, 2018, 25, 357-369.	0.7	5
105	Rat Ultrasonic Vocalizations as Social Reinforcersâ€"Implications for a Multilevel Model of the Cognitive Representation of Action and Ratsâ€™ Social World. Language, Cognition and Mind, 2021, , 411-438.	0.5	5
106	Social Behavior from Rodents to Humans. Current Topics in Behavioral Neurosciences, 2017, , .	1.7	4
107	Pharmacological Studies on the Role of Serotonin in Regulating Socioemotional Ultrasonic Vocalizations in Rats. Handbook of Behavioral Neuroscience, 2018, , 295-307.	0.7	4
108	Interaction of the Psychiatric Risk Gene Cacna1c With Post-weaning Social Isolation or Environmental Enrichment Does Not Affect Brain Mitochondrial Bioenergetics in Rats. Frontiers in Cellular Neuroscience, 2019, 13, 483.	3.7	4

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109	First genome-wide association study of esophageal atresia identifies three genetic risk loci at CTNNA3, FOXF1/FOXC2/FOXL1, and HNF1B. Human Genetics and Genomics Advances, 2022, 3, 100093.	1.7	4
110	Cacna1c haploinsufficiency lacks effects on adult hippocampal neurogenesis and volumetric properties of prefrontal cortex and hippocampus in female rats. Physiology and Behavior, 2020, 223, 112974.	2.1	3
111	Early-life seizures modify behavioral response to ultrasonic vocalization playback in adult rats. Epilepsy and Behavior, 2022, 127, 108494.	1.7	3
112	Appetitive 50ÂkHz calls in a pavlovian conditioned approach task in Cacna1c haploinsufficient rats. Physiology and Behavior, 2022, 250, 113795.	2.1	3
113	Ultraschallkommunikation bei Nagern und ihre Bedeutung fÃ¼r Modelle neuropsychiatrischer Erkrankungen. E-Neuroforum, 2010, 16, 248-258.	0.1	2
114	Adding or removing context components equally disrupts extinction in human predictive learning. Behavioural Processes, 2020, 179, 104216.	1.1	1
115	Poster #S18 ADVANCED PATERNAL AGE AS A RISK FACTOR FOR SCHIZOPHRENIA: A TRANSLATIONAL STUDY IN HUMANS AND RATS. Schizophrenia Research, 2014, 153, S94.	2.0	0
116	High frequency ultrasonic vocalization as a marker for manic-like behaviour. European Neuropsychopharmacology, 2016, 26, S420.	0.7	0
117	Paradoxical kinesia induced by appetitive 50-kHz ultrasonic vocalisations in rats depends on glutamatergic mechanisms in the inferior colliculus. European Neuropsychopharmacology, 2018, 28, S25-S26.	0.7	0
118	Environmental Effects on Rat Ultrasonic Vocalizations and Brain Plasticity: Social Isolation and Environmental Enrichment. Handbook of Behavioral Neuroscience, 2018, 25, 371-382.	0.7	0
119	50-kHz ultrasonic vocalizations increase after sleep deprivation as mania-like elevated mood in rats: Effects of lithium. European Neuropsychopharmacology, 2019, 29, S373-S374.	0.7	0
120	The inclement mouse: central serotonin deficiency and the implications. Pharmacopsychiatry, 2013, 46, .	3.3	0
121	Phasic dopamine release in the nucleus accumbens in response to ultrasonic vocalizations serving a pro-social communicative function in rats. Pharmacopsychiatry, 2013, 46, .	3.3	0
122	Social Transmission of Avoidance Behavior Under Situational Change in Learned and Unlearned Rats. , 2016, , 66-81.		0