Karl Herrup

List of Publications by Year
in descending order

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128 papers	15,723 citations	36303 51 h-index	18130 120 g-index
138 all docs	138 docs citations	138 times ranked	18111 citing authors

#	Article	IF	Citations
1	Fallacies in Neuroscience: The Alzheimer's Edition. ENeuro, 2022, 9, ENEURO.0530-21.2021.	1.9	9
2	Apolipoprotein E Îµ4 Mediates Myelin Breakdown by Targeting Oligodendrocytes in Sporadic Alzheimer Disease. Journal of Neuropathology and Experimental Neurology, 2022, 81, 717-730.	1.7	10
3	ATM loss disrupts the autophagy-lysosomal pathway. Autophagy, 2021, 17, 1998-2010.	9.1	35
4	Asymmetric leftâ€"right hippocampal glutamatergic modulation of cognitive control in ApoEâ€isoform subjects is unrelated to neuroinflammation. European Journal of Neuroscience, 2021, 54, 5310-5326.	2.6	1
5	DNA Repair Inhibition Leads to Active Export of Repetitive Sequences to the Cytoplasm Triggering an Inflammatory Response. Journal of Neuroscience, 2021, 41, 9286-9307.	3.6	13
6	Identifying a Population of Glial Progenitors That Have Been Mistaken for Neurons in Embryonic Mouse Cortical Culture. ENeuro, 2021, 8, ENEURO.0388-20.2020.	1.9	2
7	Marine bacterial extracts as a new rich source of drugs against Alzheimerâ€™s disease. Journal of Neurochemistry, 2020, 152, 493-508.	3.9	6
8	Cyclin-Dependent Kinase 5â€"Dependent BAG3 Degradation Modulates Synaptic Protein Turnover. Biological Psychiatry, 2020, 87, 756-769.	1.3	23
9	Selective loss of 5hmC promotes neurodegeneration in the mouse model of Alzheimer's disease. FASEB Journal, 2020, 34, 16364-16382.	0.5	29
10	The Mechanism of Relaxation by Viewing a Japanese Garden: A Pilot Study. Herd, 2020, 13, 31-43.	1.5	5
11	Context-Dependent Functions of E2F1: Cell Cycle, Cell Death, and DNA Damage Repair in Cortical Neurons. Molecular Neurobiology, 2020, 57, 2377-2390.	4.0	27
12	Testing the Neuroprotective Properties of PCSO-524Â® Using a Neuronal Cell Cycle Suppression Assay. Marine Drugs, 2019, 17, 79.	4.6	5
13	Alterations in epigenetic regulation contribute to neurodegeneration of ataxia-telangiectasia. , 2019, , 119-133.		0
14	Accumulation of Cytoplasmic DNA Due to ATM Deficiency Activates the Microglial Viral Response System with Neurotoxic Consequences. Journal of Neuroscience, 2019, 39, 6378-6394.	3.6	86
15	Age-related hyperinsulinemia leads to insulin resistance in neurons and cell-cycle-induced senescence. Nature Neuroscience, 2019, 22, 1806-1819.	14.8	85
16	ATM is activated by ATP depletion and modulates mitochondrial function through NRF1. Journal of Cell Biology, 2019, 218, 909-928.	5.2	55
17	ATM and ATR play complementary roles in the behavior of excitatory and inhibitory vesicle populations. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E292-E301.	7.1	58
18	DNA damageâ€associated oligodendrocyte degeneration precedes amyloid pathology and contributes to Alzheimer's disease and dementia. Alzheimer's and Dementia, 2018, 14, 664-679.	0.8	37

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19	Ibuprofen prevents progression of ataxia telangiectasia symptoms in ATM-deficient mice. Journal of Neuroinflammation, 2018, 15, 308.	7.2	18
20	The Positive Effects of Viewing Gardens for Persons with Dementia. Journal of Alzheimer's Disease, 2018, 66, 1705-1720.	2.6	11
21	Changes in visual interaction: Viewing a Japanese garden directly, through glass or as a projected image. Journal of Environmental Psychology, 2018, 60, 116-121.	5.1	14
22	DNA damage in the oligodendrocyte lineage and its role in brain aging. Mechanisms of Ageing and Development, 2017, 161, 37-50.	4.6	80
23	Reâ€imagining Alzheimer's disease â€“ the diminishing importance of amyloid and a glimpse of what lies ahead. Journal of Neurochemistry, 2017, 143, 432-444.	3.9	83
24	Loopholes in the DNA contract kill neurons. Nature Neuroscience, 2017, 20, 1192-1194.	14.8	1
25	ATM protein is located on presynaptic vesicles and its deficit leads to failures in synaptic plasticity. Journal of Neurophysiology, 2016, 116, 201-209.	1.8	22
26	The impact of glutamine supplementation on the symptoms of ataxia-telangiectasia: a preclinical assessment. Molecular Neurodegeneration, 2016, 11, 60.	10.8	29
27	Neurons in Vulnerable Regions of the Alzheimerâ€™s Disease Brain Display Reduced ATM Signaling. ENeuro, 2016, 3, ENEURO.0124-15.2016.	1.9	73
28	Non-Neuronal Cells Are Required to Mediate the Effects of Neuroinflammation: Results from a Neuron-Enriched Culture System. PLoS ONE, 2016, 11, e0147134.	2.5	38
29	The case for rejecting the amyloid cascade hypothesis. Nature Neuroscience, 2015, 18, 794-799.	14.8	613
30	The Roles of Cdk5-Mediated Subcellular Localization of FOXO1 in Neuronal Death. Journal of Neuroscience, 2015, 35, 2624-2635.	3.6	22
31	Ataxia-Telangiectasia and the Biology of Ataxia-Telangiectasia Mutated (ATM). , 2015, , 1025-1032.		0
32	Neuroinflammation in Alzheimer's disease. Lancet Neurology, The, 2015, 14, 388-405.	10.2	4,129
33	Alteration in 5-hydroxymethylcytosine-mediated epigenetic regulation leads to Purkinje cell vulnerability in ATM deficiency. Brain, 2015, 138, 3520-3536.	7.6	69
34	Genomic integrity and the ageing brain. Nature Reviews Neuroscience, 2015, 16, 672-684.	10.2	155
35	Individual Cytokines Modulate the Neurological Symptoms of<i>ATM</i>Deficiency in a Region Specific Manner. ENeuro, 2015, 2, ENEURO.0032-15.2015.	1.9	15
36	The Interaction of the Atm Genotype with Inflammation and Oxidative Stress. PLoS ONE, 2014, 9, e85863.	2.5	36

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37	CDK5 activator protein p25 preferentially binds and activates GSK3Î². Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4887-95.	7.1	67
38	Differential Responses of Individuals with Late-Stage Dementia to Two Novel Environments: A Multimedia Room and an Interior Garden. Journal of Alzheimer's Disease, 2014, 42, 985-998.	2.6	46
39	2014 Report on the Milestones for the US National Plan to Address Alzheimer's Disease. , 2014, 10, S430-S452.		64
40	Microglial derived tumor necrosis factor-Î± drives Alzheimer's disease-related neuronal cell cycle events. Neurobiology of Disease, 2014, 62, 273-285.	4.4	120
41	The role of ATM and DNA damage in neurons: Upstream and downstream connections. DNA Repair, 2013, 12, 600-604.	2.8	62
42	EZH2-mediated H3K27 trimethylation mediates neurodegeneration in ataxia-telangiectasia. Nature Neuroscience, 2013, 16, 1745-1753.	14.8	143
43	ATM and the epigenetics of the neuronal genome. Mechanisms of Ageing and Development, 2013, 134, 434-439.	4.6	12
44	Breaking news: thinking may be bad for DNA. Nature Neuroscience, 2013, 16, 518-519.	14.8	4
45	Post-mitotic role of the cell cycle machinery. Current Opinion in Cell Biology, 2013, 25, 711-716.	5.4	26
46	The contributions of unscheduled neuronal cell cycle events to the death of neurons in Alzheimer's disease. Frontiers in Bioscience - Elite, 2012, E4, 2101.	1.8	21
47	Cdk5 Levels Oscillate during the Neuronal Cell Cycle. Journal of Biological Chemistry, 2012, 287, 25985-25994.	3.4	33
48	Nuclear accumulation of HDAC4 in ATM deficiency promotes neurodegeneration in ataxia telangiectasia. Nature Medicine, 2012, 18, 783-790.	30.7	185
49	Ibuprofen attenuates oxidative damage through NOX2 inhibition in Alzheimer's disease. Neurobiology of Aging, 2012, 33, 197.e21-197.e32.	3.1	81
50	Glutamine Acts as a Neuroprotectant against DNA Damage, Beta-Amyloid and H2O2-Induced Stress. PLoS ONE, 2012, 7, e33177.	2.5	69
51	Nucleocytoplasmic Cdk5 is involved in neuronal cell cycle and death in post-mitotic neurons. Cell Cycle, 2011, 10, 1208-1214.	2.6	42
52	Commentary on â€œRecommendations from the National Institute on Agingâ€Alzheimer's Association workgroups on diagnostic guidelines for Alzheimer's disease.â€•Addressing the challenge of Alzheimer's disease in the 21st century. Alzheimer's and Dementia, 2011, 7, 335-337.	0.8	26
53	A Comparative Study of Five Mouse Models of Alzheimer's Disease: Cell Cycle Events Reveal New Insights into Neurons at Risk for Death. International Journal of Alzheimer's Disease, 2011, 2011, 1-10.	2.0	39
54	Stable Brain<i>ATM</i>Message and Residual Kinase-Active ATM Protein in Ataxia-Telangiectasia. Journal of Neuroscience, 2011, 31, 7568-7577.	3.6	25

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55	The Role of Cdk5 as a Cell Cycle Suppressor in Post-mitotic Neurons. Research and Perspectives in Alzheimer's Disease, 2011, , 17-25.	0.1	0
56	DNA damage and cell cycle events implicate cerebellar dentate nucleus neurons as targets of Alzheimer's disease. Molecular Neurodegeneration, 2010, 5, 60.	10.8	50
57	Reimagining Alzheimer's Diseaseâ€"An Age-Based Hypothesis. Journal of Neuroscience, 2010, 30, 16755-16762.	3.6	330
58	Cdk5 Suppresses the Neuronal Cell Cycle by Disrupting the E2F1â€"DP1 Complex. Journal of Neuroscience, 2010, 30, 5219-5228.	3.6	100
59	Cdk5 Nuclear Localization Is p27-dependent in Nerve Cells. Journal of Biological Chemistry, 2010, 285, 14052-14061.	3.4	53
60	The involvement of cell cycle events in the pathogenesis of Alzheimer's disease. Alzheimer's Research and Therapy, 2010, 2, 13.	6.2	34
61	Cytoplasmic ATM in Neurons Modulates Synaptic Function. Current Biology, 2009, 19, 2091-2096.	3.9	117
62	The PI3K-Akt-mTOR pathway regulates Aβ oligomer induced neuronal cell cycle events. Molecular Neurodegeneration, 2009, 4, 14.	10.8	151
63	NSAIDs prevent, but do not reverse, neuronal cell cycle reentry in a mouse model of Alzheimer disease. Journal of Clinical Investigation, 2009, 119, 3692-3702.	8.2	106
64	Nuclear localization of Cdk5 is a key determinant in the postmitotic state of neurons. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8772-8777.	7.1	111
65	Cdk5 and the non-catalytic arrest of the neuronal cell cycle. Cell Cycle, 2008, 7, 3487-3490.	2.6	42
66	Aβ Oligomers Induce Neuronal Cell Cycle Events in Alzheimer's Disease. Journal of Neuroscience, 2008, 28, 10786-10793.	3.6	126
67	Selective Vulnerability of Neurons in Primary Cultures and in Neurodegenerative Diseases. Reviews in the Neurosciences, 2008, 19, 317-26.	2.9	8
68	Thoughts on the Cerebellum as a Model for Cerebral Cortical Development and Evolution. Novartis Foundation Symposium, 2008, 228, 15-29.	1.1	4
69	E2F1 Works as a Cell Cycle Suppressor in Mature Neurons. Journal of Neuroscience, 2007, 27, 12555-12564.	3.6	39
70	Cell division in the CNS: Protective response or lethal event in post-mitotic neurons?. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2007, 1772, 457-466.	3.8	130
71	Effects of Alzheimer's Disease on Different Cortical Layers: The Role of Intrinsic Differences in Aβ Susceptibility. Journal of Neuroscience, 2007, 27, 8496-8504.	3.6	54
72	Cell cycle regulation in the postmitotic neuron: oxymoron or new biology?. Nature Reviews Neuroscience, 2007, 8, 368-378.	10.2	454

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73	A genetic study of the suppressors of the Engrailed-1 cerebellar phenotype. Brain Research, 2007, 1140, 170-178.	2.2	10
74	Ectopic Cell Cycle Events Link Human Alzheimer's Disease and Amyloid Precursor Protein Transgenic Mouse Models. Journal of Neuroscience, 2006, 26, 775-784.	3.6	164
75	Neurodegeneration and Loss of Cell Cycle Control in Postmitotic Neurons. , 2006, , 281-297.		0
76	Cyclin-Dependent Kinase 5 Is Essential for Neuronal Cell Cycle Arrest and Differentiation. Journal of Neuroscience, 2005, 25, 9658-9668.	3.6	153
77	Loss of Neuronal Cell Cycle Control in Ataxia-Telangiectasia: A Unified Disease Mechanism. Journal of Neuroscience, 2005, 25, 2522-2529.	3.6	128
78	Divide and Die: Cell Cycle Events as Triggers of Nerve Cell Death. Journal of Neuroscience, 2004, 24, 9232-9239.	3.6	268
79	CELL NUMBER IN THE INFERIOR OLIVE OFNERVOUSANDLEANERMUTANT MICE. Journal of Neurogenetics, 2004, 18, 327-339.	1.4	14
80	Dissecting complex genetic interactions that influence theEngrailed-1 limb phenotype. Mammalian Genome, 2004, 15, 352-360.	2.2	6
81	Factors in the Genetic Background Suppress the<i>Engrailed-1</i>Cerebellar Phenotype. Journal of Neuroscience, 2003, 23, 5105-5112.	3.6	52
82	Neuronal Cell Death Is Preceded by Cell Cycle Events at All Stages of Alzheimer's Disease. Journal of Neuroscience, 2003, 23, 2557-2563.	3.6	441
83	Re-expression of cell cycle proteins induces neuronal cell death during Alzheimer's disease. Journal of Alzheimer's Disease, 2002, 4, 243-247.	2.6	82
84	The Role of Tangential Migration in the Establishment of Mammalian Cortex. Neuron, 2001, 31, 175-178.	8.1	35
85	DNA Replication Precedes Neuronal Cell Death in Alzheimer's Disease. Journal of Neuroscience, 2001, 21, 2661-2668.	3.6	589
86	Neocortical Cell Migration: GABAergic Neurons and Cells in Layers I and VI Move in a Cyclin-Dependent Kinase 5-Independent Manner. Journal of Neuroscience, 2001, 21, 9690-9700.	3.6	59
87	Progressive atrophy of cerebellar Purkinje cell dendrites during aging of the heterozygous staggerer mouse (Rora+/sg). Developmental Brain Research, 2001, 126, 201-209.	1.7	50
88	Cortical development: Receiving Reelin. Current Biology, 2000, 10, R162-R166.	3.9	66
89	Beta-amyloid activated microglia induce cell cycling and cell death in cultured cortical neurons. Neurobiology of Aging, 2000, 21, 797-806.	3.1	85
90	Migration Defects of<i>cdk5</i>^{âˆ'/âˆ'}Neurons in the Developing Cerebellum is Cell Autonomous. Journal of Neuroscience, 1999, 19, 6017-6026.	3.6	130

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91	Pax-2 expression defines a subset of GABAergic interneurons and their precursors in the developing murine cerebellum. Journal of Neurobiology, 1999, 41, 281-294.	3.6	222
92	Pax-2 expression defines a subset of GABAergic interneurons and their precursors in the developing murine cerebellum. , 1999, 41, 281.		1
93	Cyclin-Dependent Kinase 5-Deficient Mice Demonstrate Novel Developmental Arrest in Cerebral Cortex. Journal of Neuroscience, 1998, 18, 6370-6377.	3.6	294
94	Ectopic Cell Cycle Proteins Predict the Sites of Neuronal Cell Death in Alzheimerâ€™s Disease Brain. Journal of Neuroscience, 1998, 18, 2801-2807.	3.6	512
95	Social Interaction and Sensorimotor Gating Abnormalities in Mice Lacking Dvl1. Cell, 1997, 90, 895-905.	28.9	440
96	Failed Cell Migration and Death of Purkinje Cells and Deep Nuclear Neurons in theweaverCerebellum. Journal of Neuroscience, 1997, 17, 3675-3683.	3.6	52
97	Pattern Deformities and Cell Loss inEngrailed-2Mutant Mice Suggest Two Separate Patterning Events during Cerebellar Development. Journal of Neuroscience, 1997, 17, 7881-7889.	3.6	136
98	Cortical development: Layers of complexity. Current Biology, 1997, 7, R231-R234.	3.9	47
99	Purkinje cell loss in heterozygous staggerer mutant mice during aging. Developmental Brain Research, 1997, 98, 1-8.	1.7	33
100	Elements between the protein-coding regions of the adjacent ?4 and ?3 acetylcholine receptor genes direct neuron-specific expression in the central nervous system. , 1997, 32, 311-324.		24
101	The numerical matching of source and target populations in the CNS: the inferior olive to Purkinje cell projection. Developmental Brain Research, 1996, 96, 28-35.	1.7	43
102	Abnormal Purkinje cell dendrites inLurcher chimeric mice result from a deafferentation-induced atrophy. , 1996, 29, 330-340.		5
103	Stunted morphologies of cerebellar Purkinje cells inlurcher andstaggerer mice are cell-Intrinsic effects of the mutant genes. Journal of Comparative Neurology, 1995, 357, 65-75.	1.6	37
104	Aldolase C/zebrin II and the regionalization of the cerebellum. Journal of Molecular Neuroscience, 1995, 6, 147-158.	2.3	117
105	Developmental studies of the inferior olivary nucleus in staggerer mutant mice. Developmental Brain Research, 1994, 82, 18-28.	1.7	38
106	Cortical development and topographic maps: patterns of cell dispersion in developing cerebral cortex. Current Opinion in Neurobiology, 1994, 4, 108-111.	4.2	15
107	Purkinje cell dendrites instaggerer ? wild type mouse chimeras lack the aberrant morphologies found inlurcher ? wild type chimeras. Journal of Comparative Neurology, 1993, 331, 540-550.	1.6	9
108	Neuronal cell loss in heterozygous staggerer mutant mice: a model for genetic contributions to the aging process. Developmental Brain Research, 1992, 67, 153-160.	1.7	41

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109	Mice deficient for Rb are nonviable and show defects in neurogenesis and haematopoiesis. Nature, 1992, 359, 288-294.	27.8	1,259
110	The Use of Experimental Genetics to Study Pattern Formation in the Mammalian CNS. , 1992, , 99-111.		1
111	The fine structure of the Purkinje cell and its afferents inlurcher chimeric mice. Journal of Comparative Neurology, 1991, 305, 421-434.	1.6	12
112	Studies of the dendritic tree of wild-type cerebellar Purkinje cells in lurcher chimeric mice. Journal of Comparative Neurology, 1990, 297, 121-131.	1.6	22
113	Cell Loss in the Inferior Olive of the Staggerer Mutant Mouse is an Indirect Effect of the Gene. Journal of Neurogenetics, 1990, 6, 229-241.	1.4	50
114	Patterns of cell lineage in the cerebral cortex reveal evidence for developmental boundaries. Experimental Neurology, 1990, 109, 131-139.	4.1	27
115	Numerical matching in the mammalian CNS: Lack of a competitive advantage of early over late-generated cerebellar granule cells. Journal of Comparative Neurology, 1989, 283, 118-128.	1.6	26
116	Chapter 3 Roles of Cell Lineage in the Developing Mammalian Brain. Current Topics in Developmental Biology, 1987, 21, 65-97.	2.2	8
117	Of neurons and oncogenes. Trends in Neurosciences, 1985, 8, 511-512.	8.6	7
118	Role of staggerer gene in determining cell number in cerebellar cortex. II. Granule cell death and persistence of the external granule cell layer in young mouse chimeras. Developmental Brain Research, 1984, 12, 271-283.	1.7	46
119	Monoclonal antibodies reveal geometric relationships in the rat cerebellar cortex. Trends in Neurosciences, 1984, 7, 361-362.	8.6	0
120	The molecular genetics of myelin basic protein. Trends in Neurosciences, 1984, 7, 36-37.	8.6	1
121	Direct correlation between Purkinje and granule cell number in the cerebella of lurcher chimeras and wild-type mice. Developmental Brain Research, 1983, 10, 41-47.	1.7	133
122	Role of staggerer gene in determining cell number in cerebellar cortex. I. Granule cell death is an indirect consequence of staggerer gene action. Developmental Brain Research, 1983, 11, 267-274.	1.7	124
123	Interaction of granule, Purkinje and inferior olivary neurons in lurcher chimeric mice. II. Granule cell death. Brain Research, 1982, 250, 358-362.	2.2	195
124	Interaction of granule, Purkinje and inferior olivary neurons in Lurcher chimaeric mice. Development (Cambridge), 1982, 68, 87-98.	2.5	36
125	Quantitative examination of the deep cerebellar nuclei in the staggerer mutant mouse. Brain Research, 1981, 215, 49-59.	2.2	42
126	Role of the staggerer gene in determining Purkinje cell number in the cerebellar cortex of mouse chimeras. Developmental Brain Research, 1981, 1, 475-485.	1.7	54

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127	Staggerer chimeras: Intrinsic nature of purkinje cell defects and implications for normal cerebellar development. Brain Research, 1979, 178, 443-457.	2.2	163
128	Regional variation and absence of large neurons in the cerebellum of the staggerer mouse. Brain Research, 1979, 172, 1-12.	2.2	196