Li-Huei Tsai

List of Publications by Year
in descending order

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143 papers	35,957 citations	5261 83 h-index	10152 140 g-index
163 all docs	163 docs citations	163 times ranked	34353 citing authors

#	Article	IF	Citations
1	Driving fast-spiking cells induces gamma rhythm and controls sensory responses. Nature, 2009, 459, 663-667.	13.7	2,250
2	Single-cell transcriptomic analysis of Alzheimerâ€™s disease. Nature, 2019, 570, 332-337.	13.7	1,528
3	Conversion of p35 to p25 deregulates Cdk5 activity and promotes neurodegeneration. Nature, 1999, 402, 615-622.	13.7	1,424
4	HDAC2 negatively regulates memory formation and synaptic plasticity. Nature, 2009, 459, 55-60.	13.7	1,414
5	Recovery of learning and memory is associated with chromatin remodelling. Nature, 2007, 447, 178-182.	13.7	1,120
6	Neurotoxicity induces cleavage of p35 to p25 by calpain. Nature, 2000, 405, 360-364.	13.7	985
7	A decade of CDK5. Nature Reviews Molecular Cell Biology, 2001, 2, 749-759.	16.1	983
8	SIRT1 deacetylase protects against neurodegeneration in models for Alzheimer's disease and amyotrophic lateral sclerosis. EMBO Journal, 2007, 26, 3169-3179.	3.5	982
9	p35 is a neural-specific regulatory subunit of cyclin-dependent kinase 5. Nature, 1994, 371, 419-423.	13.7	885
10	A novel pathway regulates memory and plasticity via SIRT1 and miR-134. Nature, 2010, 466, 1105-1109.	13.7	864
11	Gamma frequency entrainment attenuates amyloid load and modifies microglia. Nature, 2016, 540, 230-235.	13.7	812
12	Mice Lacking p35, a Neuronal Specific Activator of Cdk5, Display Cortical Lamination Defects, Seizures, and Adult Lethality. Neuron, 1997, 18, 29-42.	3.8	743
13	An epigenetic blockade of cognitive functions in the neurodegenerating brain. Nature, 2012, 483, 222-226.	13.7	733
14	APOE4 Causes Widespread Molecular and Cellular Alterations Associated with Alzheimerâ€™s Disease Phenotypes in Human iPSC-Derived Brain Cell Types. Neuron, 2018, 98, 1141-1154.e7.	3.8	665
15	Aberrant Cdk5 Activation by p25 Triggers Pathological Events Leading to Neurodegeneration and Neurofibrillary Tangles. Neuron, 2003, 40, 471-483.	3.8	567
16	Activity-Induced DNA Breaks Govern the Expression of Neuronal Early-Response Genes. Cell, 2015, 161, 1592-1605.	13.5	566
17	Phosphorylation of DARPP-32 by Cdk5 modulates dopamine signalling in neurons. Nature, 1999, 402, 669-671.	13.7	538
18	Temporal Tracking of Microglia Activation in Neurodegeneration at Single-Cell Resolution. Cell Reports, 2017, 21, 366-380.	2.9	538

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19	Noninvasive Deep Brain Stimulation via Temporally Interfering Electric Fields. Cell, 2017, 169, 1029-1041.e16.	13.5	536
20	Isolation of the human cdk2 gene that encodes the cyclin A- and adenovirus E1A-associated p33 kinase. Nature, 1991, 353, 174-177.	13.7	526
21	Conserved epigenomic signals in mice and humans reveal immune basis of Alzheimerâ€™s disease. Nature, 2015, 518, 365-369.	13.7	526
22	Histone acetylation: molecular mnemonics on the chromatin. Nature Reviews Neuroscience, 2013, 14, 97-111.	4.9	512
23	DNA Damage and Its Links to Neurodegeneration. Neuron, 2014, 83, 266-282.	3.8	494
24	Efficient derivation of microglia-like cells from human pluripotent stem cells. Nature Medicine, 2016, 22, 1358-1367.	15.2	486
25	NUDEL Is a Novel Cdk5 Substrate that Associates with LIS1 and Cytoplasmic Dynein. Neuron, 2000, 28, 697-711.	3.8	447
26	The road to restoring neural circuits for the treatment of Alzheimer's disease. Nature, 2016, 539, 187-196.	13.7	426
27	Multi-sensory Gamma Stimulation Ameliorates Alzheimerâ€™s-Associated Pathology and Improves Cognition. Cell, 2019, 177, 256-271.e22.	13.5	423
28	Independent binding of the retinoblastoma protein and p107 to the transcription factor E2F. Nature, 1992, 355, 176-179.	13.7	415
29	Self-Organizing 3D Human Neural Tissue Derived from Induced Pluripotent Stem Cells Recapitulate Alzheimerâ€™s Disease Phenotypes. PLoS ONE, 2016, 11, e0161969.	1.1	405
30	APP processing is regulated by cytoplasmic phosphorylation. Journal of Cell Biology, 2003, 163, 83-95.	2.3	393
31	Tet1 Is Critical for Neuronal Activity-Regulated Gene Expression and Memory Extinction. Neuron, 2013, 79, 1109-1122.	3.8	393
32	Cyclin-dependent kinases: a family portrait. Nature Cell Biology, 2009, 11, 1275-1276.	4.6	381
33	The p35/Cdk5 kinase is a neuron-specific Rac effector that inhibits Pak1 activity. Nature, 1998, 395, 194-198.	13.7	380
34	Cables Links Cdk5 and c-Abl and Facilitates Cdk5 Tyrosine Phosphorylation, Kinase Upregulation, and Neurite Outgrowth. Neuron, 2000, 26, 633-646.	3.8	367
35	p35 and p39 Are Essential for Cyclin-Dependent Kinase 5 Function during Neurodevelopment. Journal of Neuroscience, 2001, 21, 6758-6771.	1.7	361
36	Interaction of FUS and HDAC1 regulates DNA damage response and repair in neurons. Nature Neuroscience, 2013, 16, 1383-1391.	7.1	330

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37	Nucleokinesis in Neuronal Migration. Neuron, 2005, 46, 383-388.	3.8	325
38	Epigenetic Priming of Memory Updating during Reconsolidation to Attenuate Remote Fear Memories. Cell, 2014, 156, 261-276.	13.5	318
39	Epigenetic Regulation of Gene Expression in Physiological and Pathological Brain Processes. Physiological Reviews, 2011, 91, 603-649.	13.1	315
40	Serine 732 Phosphorylation of FAK by Cdk5 Is Important for Microtubule Organization, Nuclear Movement, and Neuronal Migration. Cell, 2003, 114, 469-482.	13.5	289
41	Cyclin-Dependent Kinases in Brain Development and Disease. Annual Review of Cell and Developmental Biology, 2011, 27, 465-491.	4.0	277
42	What is memory? The present state of the engram. BMC Biology, 2016, 14, 40.	1.7	277
43	Modeling Alzheimerâ€™s disease with iPSC-derived brain cells. Molecular Psychiatry, 2020, 25, 148-167.	4.1	263
44	Deregulation of HDAC1 by p25/Cdk5 in Neurotoxicity. Neuron, 2008, 60, 803-817.	3.8	262
45	Opposing Roles of Transient and Prolonged Expression of p25 in Synaptic Plasticity and Hippocampus-Dependent Memory. Neuron, 2005, 48, 825-838.	3.8	259
46	Gamma Entrainment Binds Higher-Order Brain Regions and Offers Neuroprotection. Neuron, 2019, 102, 929-943.e8.	3.8	252
47	G Protein Î²Î³ Subunits and AGS3 Control Spindle Orientation and Asymmetric Cell Fate of Cerebral Cortical Progenitors. Cell, 2005, 122, 119-131.	13.5	244
48	Cdk5 deregulation in the pathogenesis of Alzheimer's disease. Trends in Molecular Medicine, 2004, 10, 452-458.	3.5	232
49	Cdk5 Phosphorylation of Doublecortin Ser297 Regulates Its Effect on Neuronal Migration. Neuron, 2004, 41, 215-227.	3.8	220
50	Cyclin-Dependent Kinase 5 Phosphorylates the N-Terminal Domain of the Postsynaptic Density Protein PSD-95 in Neurons. Journal of Neuroscience, 2004, 24, 865-876.	1.7	208
51	SIRT1 collaborates with ATM and HDAC1 to maintain genomic stability in neurons. Nature Neuroscience, 2013, 16, 1008-1015.	7.1	206
52	Meta-Analysis of the Alzheimerâ€™s Disease Human Brain Transcriptome and Functional Dissection in Mouse Models. Cell Reports, 2020, 32, 107908.	2.9	199
53	p25/Cyclin-Dependent Kinase 5 Induces Production and Intraneuronal Accumulation of Amyloid beta In Vivo. Journal of Neuroscience, 2006, 26, 10536-10541.	1.7	192
54	Regulation of N-cadherin-mediated adhesion by the p35â€“Cdk5 kinase. Current Biology, 2000, 10, 363-372.	1.8	191

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55	The schizophrenia risk gene product miR-137 alters presynaptic plasticity. Nature Neuroscience, 2015, 18, 1008-1016.	7.1	191
56	Reconstruction of the human bloodâ€“brain barrier in vitro reveals a pathogenic mechanism of APOE4 in pericytes. Nature Medicine, 2020, 26, 952-963.	15.2	173
57	A Jekyll and Hyde kinase: roles for Cdk5 in brain development and disease. Current Opinion in Neurobiology, 2004, 14, 390-394.	2.0	163
58	Cep120 and TACCs Control Interkinetic Nuclear Migration and the Neural Progenitor Pool. Neuron, 2007, 56, 79-93.	3.8	161
59	Neural sirtuin 6 (Sirt6) ablation attenuates somatic growth and causes obesity. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21790-21794.	3.3	160
60	A survey of Cdk5 activator p35 and p25 levels in Alzheimer's disease brains. FEBS Letters, 2002, 523, 58-62.	1.3	154
61	REST and Neural Gene Network Dysregulation in iPSC Models of Alzheimerâ€™s Disease. Cell Reports, 2019, 26, 1112-1127.e9.	2.9	150
62	Histone deacetylases in memory and cognition. Science Signaling, 2014, 7, re12.	1.6	149
63	A novel disruption of cortical development inp35?/? mice distinct fromreeler. Journal of Comparative Neurology, 1998, 395, 510-522.	0.9	147
64	APOE4 disrupts intracellular lipid homeostasis in human iPSC-derived glia. Science Translational Medicine, 2021, 13, .	5.8	141
65	A hippocampal Cdk5 pathway regulates extinction of contextual fear. Nature Neuroscience, 2007, 10, 1012-1019.	7.1	135
66	Single-cell dissection of the human brain vasculature. Nature, 2022, 603, 893-899.	13.7	135
67	Dixdc1 Is a Critical Regulator of DISC1 and Embryonic Cortical Development. Neuron, 2010, 67, 33-48.	3.8	132
68	Doublecortin-like Kinase Controls Neurogenesis by Regulating Mitotic Spindles and M Phase Progression. Neuron, 2006, 49, 25-39.	3.8	131
69	Gamma Entrainment: Impact on Neurocircuits, Glia, and Therapeutic Opportunities. Trends in Neurosciences, 2020, 43, 24-41.	4.2	127
70	Differential Cellular Phosphorylation of Neurofilament Heavy Sideâ€Arms by Glycogen Synthase Kinaseâ€3 and Cyclinâ€Dependent Kinaseâ€5. Journal of Neurochemistry, 1996, 66, 1698-1706.	2.1	120
71	Inhibition of p25/Cdk5 Attenuates Tauopathy in Mouse and iPSC Models of Frontotemporal Dementia. Journal of Neuroscience, 2017, 37, 9917-9924.	1.7	117
72	Amphiphysin 1 Binds the Cyclin-dependent Kinase (cdk) 5 Regulatory Subunit p35 and Is Phosphorylated by cdk5 and cdc2. Journal of Biological Chemistry, 2001, 276, 8104-8110.	1.6	116

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73	A Dietary Regimen of Caloric Restriction or Pharmacological Activation of SIRT1 to Delay the Onset of Neurodegeneration. Journal of Neuroscience, 2013, 33, 8951-8960.	1.7	113
74	The Cyclin-Dependent Kinase 5 Activators p35 and p39 Interact with the Î±-Subunit of Ca2+/Calmodulin-Dependent Protein Kinase II and Î±-Actinin-1 in a Calcium-Dependent Manner. Journal of Neuroscience, 2002, 22, 7879-7891.	1.7	112
75	Cdk5 Promotes Synaptogenesis by Regulating the Subcellular Distribution of the MAGUK Family Member CASK. Neuron, 2007, 56, 823-837.	3.8	111
76	The Role of Epigenetic Mechanisms in the Regulation of Gene Expression in the Nervous System. Journal of Neuroscience, 2016, 36, 11427-11434.	1.7	109
77	Alternative Functions of Core Cell Cycle Regulators in Neuronal Migration, Neuronal Maturation, and Synaptic Plasticity. Neuron, 2009, 62, 312-326.	3.8	107
78	HDAC1 modulates OGG1-initiated oxidative DNA damage repair in the aging brain and Alzheimerâ€™s disease. Nature Communications, 2020, 11, 2484.	5.8	107
79	Cdk5, a therapeutic target for Alzheimer's disease?. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2004, 1697, 137-142.	1.1	96
80	Epigenetic modifications in the nervous system and their impact upon cognitive impairments. Neuropharmacology, 2014, 80, 70-82.	2.0	95
81	Probing the role of HDACs and mechanisms of chromatin-mediated neuroplasticity. Neurobiology of Learning and Memory, 2011, 96, 41-52.	1.0	90
82	Mapping the epigenomic and transcriptomic interplay during memory formation and recall in the hippocampal engram ensemble. Nature Neuroscience, 2020, 23, 1606-1617.	7.1	89
83	Histone deacetylase 3 associates with MeCP2 to regulate FOXO and social behavior. Nature Neuroscience, 2016, 19, 1497-1505.	7.1	88
84	Crebinostat: A novel cognitive enhancer that inhibits histone deacetylase activity and modulates chromatin-mediated neuroplasticity. Neuropharmacology, 2013, 64, 81-96.	2.0	87
85	Early remodeling of the neocortex upon episodic memory encoding. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 11852-11857.	3.3	86
86	S -nitrosation of proteins relevant to Alzheimerâ€™s disease during early stages of neurodegeneration. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 4152-4157.	3.3	76
87	The Transcription Factor Sp3 Cooperates with HDAC2 to Regulate Synaptic Function and Plasticity in Neurons. Cell Reports, 2017, 20, 1319-1334.	2.9	76
88	Regulation of N-type Voltage-Gated Calcium Channels and Presynaptic Function by Cyclin-Dependent Kinase 5. Neuron, 2012, 75, 675-687.	3.8	75
89	Activity-Dependent p25 Generation Regulates Synaptic Plasticity and Aî²-Induced Cognitive Impairment. Cell, 2014, 157, 486-498.	13.5	74
90	Temporal and spatial patterns of expression of p35, a regulatory subunit of cyclin-dependent kinase 5, in the nervous system of the mouse. Journal of Neurocytology, 1997, 26, 283-296.	1.6	72

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91	Noninvasive 40-Hz light flicker to recruit microglia and reduce amyloid beta load. Nature Protocols, 2018, 13, 1850-1868.	5.5	70
92	Callosal axon guidance defects in p35?/? mice. , 1999, 415, 218-229.		69
93	Control of Activating Transcription Factor 4 (ATF4) Persistence by Multisite Phosphorylation Impacts Cell Cycle Progression and Neurogenesis*. Journal of Biological Chemistry, 2010, 285, 33324-33337.	1.6	68
94	A Library of Phosphoproteomic and Chromatin Signatures for Characterizing Cellular Responses to Drug Perturbations. Cell Systems, 2018, 6, 424-443.e7.	2.9	68
95	Cell of all trades: oligodendrocyte precursor cells in synaptic, vascular, and immune function. Genes and Development, 2021, 35, 180-198.	2.7	68
96	Basolateral amygdala bidirectionally modulates stress-induced hippocampal learning and memory deficits through a p25/Cdk5-dependent pathway. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7291-7296.	3.3	62
97	Cdk5 Is Required for Memory Function and Hippocampal Plasticity via the cAMP Signaling Pathway. PLoS ONE, 2011, 6, e25735.	1.1	62
98	Mechanisms of Age-Related Cognitive Change and Targets for Intervention: Epigenetics. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2012, 67, 741-746.	1.7	56
99	Spindle regulation in neural precursors of flies and mammals. Nature Reviews Neuroscience, 2007, 8, 89-100.	4.9	53
100	APOE4-carrying human astrocytes oversupply cholesterol to promote neuronal lipid raft expansion and AÎ² generation. Stem Cell Reports, 2021, 16, 2128-2137.	2.3	52
101	Three decades of Cdk5. Journal of Biomedical Science, 2021, 28, 79.	2.6	52
102	PICALM Rescues Endocytic Defects Caused by the Alzheimerâ€™s Disease Risk Factor APOE4. Cell Reports, 2020, 33, 108224.	2.9	49
103	GC Box-binding Transcription Factors Control the Neuronal Specific Transcription of the Cyclin-dependent Kinase 5 Regulator p35. Journal of Biological Chemistry, 2002, 277, 4455-4464.	1.6	43
104	Mechanisms of DNA damageâ€mediated neurotoxicity in neurodegenerative disease. EMBO Reports, 2022, 23, e54217.	2.0	43
105	3D mapping reveals network-specific amyloid progression and subcortical susceptibility in mice. Communications Biology, 2019, 2, 360.	2.0	42
106	Diaminothiazoles Modify Tau Phosphorylation and Improve the Tauopathy in Mouse Models*. Journal of Biological Chemistry, 2013, 288, 22042-22056.	1.6	41
107	Down-syndrome-induced senescence disrupts the nuclear architecture of neural progenitors. Cell Stem Cell, 2022, 29, 116-130.e7.	5.2	41
108	Chromatin Regulation of DNA Damage Repair and Genome Integrity in the Central Nervous System. Journal of Molecular Biology, 2014, 426, 3376-3388.	2.0	39

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109	In the loop: how chromatin topology links genome structure to function in mechanisms underlying learning and memory. Current Opinion in Neurobiology, 2017, 43, 48-55.	2.0	37
110	MEF2 is a key regulator of cognitive potential and confers resilience to neurodegeneration. Science Translational Medicine, 2021, 13, eabd7695.	5.8	37
111	Loss of Protein Arginine Methyltransferase 8 Alters Synapse Composition and Function, Resulting in Behavioral Defects. Journal of Neuroscience, 2017, 37, 8655-8666.	1.7	36
112	Dissecting the complexities of Alzheimer disease with in vitro models of the human brain. Nature Reviews Neurology, 2022, 18, 25-39.	4.9	30
113	TFP5, a Peptide Inhibitor of Aberrant and Hyperactive Cdk5/p25, Attenuates Pathological Phenotypes and Restores Synaptic Function in CK-p25Tg Mice. Journal of Alzheimer's Disease, 2017, 56, 335-349.	1.2	29
114	Induction of specific brain oscillations may restore neural circuits and be used for the treatment of Alzheimer's disease. Journal of Internal Medicine, 2021, 290, 993-1009.	2.7	29
115	Profiling DNA break sites and transcriptional changes in response to contextual fear learning. PLoS ONE, 2021, 16, e0249691.	1.1	29
116	HDAC2 expression in parvalbumin interneurons regulates synaptic plasticity in the mouse visual cortex. Neuroepigenetics, 2015, 1, 34-40.	2.8	27
117	BACE-1 inhibition facilitates the transition from homeostatic microglia to DAM-1. Science Advances, 2022, 8, .	4.7	27
118	Loss of Cyclin-Dependent Kinase 5 from Parvalbumin Interneurons Leads to Hyperinhibition, Decreased Anxiety, and Memory Impairment. Journal of Neuroscience, 2015, 35, 2372-2383.	1.7	26
119	Telomerase reverse transcriptase preserves neuron survival and cognition in Alzheimerâ€™s disease models. Nature Aging, 2021, 1, 1162-1174.	5.3	24
120	Cdk5 is a New Rapid Synaptic Homeostasis Regulator Capable of Initiating the Early Alzheimer-Like Pathology. Cerebral Cortex, 2016, 26, 2937-2951.	1.6	23
121	Forebrain-specific deletion of Cdk5 in pyramidal neurons results in mania-like behavior and cognitive impairment. Neurobiology of Learning and Memory, 2013, 105, 54-62.	1.0	21
122	Phosphoproteomics identifies microglial Siglecâ€F inflammatory response during neurodegeneration. Molecular Systems Biology, 2020, 16, e9819.	3.2	20
123	On the resilience of remote traumatic memories against exposure therapyâ€mediated attenuation. EMBO Reports, 2014, 15, 853-861.	2.0	17
124	Harnessing cerebral organoids for Alzheimer's disease research. Current Opinion in Neurobiology, 2022, 72, 120-130.	2.0	17
125	Exifone Is a Potent HDAC1 Activator with Neuroprotective Activity in Human Neuronal Models of Neurodegeneration. ACS Chemical Neuroscience, 2021, 12, 271-284.	1.7	14
126	Histone Deacetylases 1 and 2 in Memory Function. ACS Chemical Neuroscience, 2022, 13, 848-858.	1.7	14

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127	Unraveling the Paradox of Statins with Human Neurons: New Leads in Alzheimerâ€™s Disease. Cell Stem Cell, 2019, 24, 347-349.	5.2	12
128	Three-dimensional chromatin organization in brain function and dysfunction. Current Opinion in Neurobiology, 2021, 69, 214-221.	2.0	10
129	Human Induced Pluripotent Stem Cells: Now Open to Discovery. Cell Stem Cell, 2014, 15, 4-6.	5.2	9
130	Proteomic profiling dataset of chemical perturbations in multiple biological backgrounds. Scientific Data, 2021, 8, 226.	2.4	9
131	MethyLock: DNA Demethylation Is the Epigenetic Key to Axon Regeneration. Neuron, 2017, 94, 221-223.	3.8	6
132	A Developmental Switch in Microglial HDAC Function. Immunity, 2018, 48, 476-478.	6.6	6
133	Neuronal enhancers get a break. Neuron, 2021, 109, 1766-1768.	3.8	5
134	JAKMIP1: Translating the Message for Social Behavior. Neuron, 2015, 88, 1070-1072.	3.8	4
135	Transient enhancement of proliferation of neural progenitors and impairment of their long-term survival in p25 transgenic mice. Oncotarget, 2016, 7, 39148-39161.	0.8	4
136	HDAC Inhibitors as Novel Therapeutics in Aging and Alzheimerâ€™s Disease. , 2013, , 225-248.		3
137	Examining the Role of HDACs in DNA Double-Strand Break Repair in Neurons. Methods in Molecular Biology, 2019, 1983, 225-234.	0.4	3
138	The complexity of neuroinflammation at single-cell resolution. Nature Reviews Neurology, 2019, 15, 249-250.	4.9	2
139	A novel disruption of cortical development in p35â^'/â^' mice distinct from reeler. , 1998, 395, 510.		1
140	Neurodegenerative Diseases and the Aging Brain. , 2018, , 509-526.		1
141	A decade of CDK5. , 0, .		1
142	Molecular Mechanisms Underlying Migration and Positioning of Neurons in the Developing Neocortex. Microscopy and Microanalysis, 2004, 10, 1462-1463.	0.2	0
143	miRNAs in the brain and the application of RNAi to neurons. , 2005, , 84-100.		0