

Lennart Mucke

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

122
papers

30,971
citations

79
h-index

131
g-index

131
ext. papers

34,836
ext. citations

15.6
avg, IF

7.15
L-index

#	Paper	IF	Citations
122	TAU ablation in excitatory neurons and postnatal TAU knockdown reduce epilepsy, SUDEP, and autism behaviors in a Dravet syndrome model.. <i>Science Translational Medicine</i> , 2022 , 14, eabm5527	17.5	1
121	Tau reduction affects excitatory and inhibitory neurons differently, reduces excitation/inhibition ratios, and counteracts network hypersynchrony. <i>Cell Reports</i> , 2021 , 37, 109855	10.6	8
120	Interdependence of neural network dysfunction and microglial alterations in Alzheimer's disease-related models. <i>iScience</i> , 2021 , 24, 103245	6.1	1
119	Phenotypic Differences between the Alzheimer's Disease-Related hAPP-J20 Model and Heterozygous Knock-Out Mice. <i>ENeuro</i> , 2021 , 8,	3.9	2
118	Tau: Enabler of diverse brain disorders and target of rapidly evolving therapeutic strategies. <i>Science</i> , 2021 , 371,	33.3	40
117	Effect of Levetiracetam on Cognition in Patients With Alzheimer Disease With and Without Epileptiform Activity: A Randomized Clinical Trial. <i>JAMA Neurology</i> , 2021 , 78, 1345-1354	17.2	12
116	Tau Reduction Prevents Key Features of Autism in Mouse Models. <i>Neuron</i> , 2020 , 106, 421-437.e11	13.9	29
115	Long-term potentiation is independent of the C-tail of the GluA1 AMPA receptor subunit. <i>ELife</i> , 2020 , 9,	8.9	12
114	A second X chromosome contributes to resilience in a mouse model of Alzheimer's disease. <i>Science Translational Medicine</i> , 2020 , 12,	17.5	40
113	Behavioral and neural network abnormalities in human APP transgenic mice resemble those of App knock-in mice and are modulated by familial Alzheimer's disease mutations but not by inhibition of BACE1. <i>Molecular Neurodegeneration</i> , 2020 , 15, 53	19	18
112	Fibrinogen Induces Microglia-Mediated Spine Elimination and Cognitive Impairment in an Alzheimer's Disease Model. <i>Neuron</i> , 2019 , 101, 1099-1108.e6	13.9	139
111	Early neuronal accumulation of DNA double strand breaks in Alzheimer's disease. <i>Acta Neuropathologica Communications</i> , 2019 , 7, 77	7.3	68
110	Nav1.1-Overexpressing Interneuron Transplants Restore Brain Rhythms and Cognition in a Mouse Model of Alzheimer's Disease. <i>Neuron</i> , 2018 , 98, 75-89.e5	13.9	85
109	The Psychiatric Cell Map Initiative: A Convergent Systems Biological Approach to Illuminating Key Molecular Pathways in Neuropsychiatric Disorders. <i>Cell</i> , 2018 , 174, 505-520	56.2	69
108	Neuronal levels and sequence of tau modulate the power of brain rhythms. <i>Neurobiology of Disease</i> , 2018 , 117, 181-188	7.5	24
107	Istradefylline reduces memory deficits in aging mice with amyloid pathology. <i>Neurobiology of Disease</i> , 2018 , 110, 29-36	7.5	52
106	Klotho controls the brain-immune system interface in the choroid plexus. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E11388-E11396	11.5	46

105	Fibrin-targeting immunotherapy protects against neuroinflammation and neurodegeneration. <i>Nature Immunology</i> , 2018 , 19, 1212-1223	19.1	90
104	The mouse as a model for neuropsychiatric drug development. <i>Current Biology</i> , 2018 , 28, R909-R914	6.3	15
103	Phosphorylation of tau at Y18, but not tau-fyn binding, is required for tau to modulate NMDA receptor-dependent excitotoxicity in primary neuronal culture. <i>Molecular Neurodegeneration</i> , 2017 , 12, 41	19	49
102	The integration site of the transgene in the J20 mouse model of Alzheimer's disease. <i>Wellcome Open Research</i> , 2017 , 2, 84	4.8	10
101	The integration site of the APP transgene in the J20 mouse model of Alzheimer's disease. <i>Wellcome Open Research</i> , 2017 , 2, 84	4.8	11
100	Network abnormalities and interneuron dysfunction in Alzheimer disease. <i>Nature Reviews Neuroscience</i> , 2016 , 17, 777-792	13.5	390
99	Tau Phosphorylation-Much More than a Biomarker. <i>Neuron</i> , 2016 , 92, 265-267	13.9	8
98	Expression of A152T human tau causes age-dependent neuronal dysfunction and loss in transgenic mice. <i>EMBO Reports</i> , 2016 , 17, 530-51	6.5	77
97	Increasing the Receptor Tyrosine Kinase EphB2 Prevents Amyloid-Induced Depletion of Cell Surface Glutamate Receptors by a Mechanism That Requires the PDZ-binding Motif of EphB2 and Neuronal Activity. <i>Journal of Biological Chemistry</i> , 2016 , 291, 1719-1734	5.4	24
96	Incidence and impact of subclinical epileptiform activity in Alzheimer's disease. <i>Annals of Neurology</i> , 2016 , 80, 858-870	9.4	218
95	Tau post-translational modifications in wild-type and human amyloid precursor protein transgenic mice. <i>Nature Neuroscience</i> , 2015 , 18, 1183-9	25.5	295
94	Tau reduction prevents A β -induced axonal transport deficits by blocking activation of GSK3 β . <i>Journal of Cell Biology</i> , 2015 , 209, 419-33	7.3	99
93	DNA repair factor BRCA1 depletion occurs in Alzheimer brains and impairs cognitive function in mice. <i>Nature Communications</i> , 2015 , 6, 8897	17.4	104
92	Network dysfunction in E β synuclein transgenic mice and human Lewy body dementia. <i>Annals of Clinical and Translational Neurology</i> , 2015 , 2, 1012-28	5.3	28
91	Life extension factor klotho prevents mortality and enhances cognition in hAPP transgenic mice. <i>Journal of Neuroscience</i> , 2015 , 35, 2358-71	6.6	105
90	Astrocytic adenosine receptor A2A and Gs-coupled signaling regulate memory. <i>Nature Neuroscience</i> , 2015 , 18, 423-34	25.5	165
89	Progranulin protects against amyloid β deposition and toxicity in Alzheimer's disease mouse models. <i>Nature Medicine</i> , 2014 , 20, 1157-64	50.5	153
88	Tau reduction prevents disease in a mouse model of Dravet syndrome. <i>Annals of Neurology</i> , 2014 , 76, 443-56	9.4	95

87	Life extension factor klotho enhances cognition. <i>Cell Reports</i> , 2014 , 7, 1065-76	10.6	166
86	Tau reduction diminishes spatial learning and memory deficits after mild repetitive traumatic brain injury in mice. <i>PLoS ONE</i> , 2014 , 9, e115765	3.7	70
85	Seizures and epileptiform activity in the early stages of Alzheimer disease. <i>JAMA Neurology</i> , 2013 , 70, 1158-66	17.2	387
84	Age-appropriate cognition and subtle dopamine-independent motor deficits in aged tau knockout mice. <i>Neurobiology of Aging</i> , 2013 , 34, 1523-9	5.6	82
83	Physiologic brain activity causes DNA double-strand breaks in neurons, with exacerbation by amyloid- β . <i>Nature Neuroscience</i> , 2013 , 16, 613-21	25.5	296
82	Selective targeting of microglia by quantum dots. <i>Journal of Neuroinflammation</i> , 2012 , 9, 22	10.1	52
81	Neurotoxicity of amyloid β protein: synaptic and network dysfunction. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2012 , 2, a006338	5.4	651
80	Levetiracetam suppresses neuronal network dysfunction and reverses synaptic and cognitive deficits in an Alzheimer's disease model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, E2895-903	11.5	404
79	Alzheimer mechanisms and therapeutic strategies. <i>Cell</i> , 2012 , 148, 1204-22	56.2	1278
78	Inhibitory interneuron deficit links altered network activity and cognitive dysfunction in Alzheimer model. <i>Cell</i> , 2012 , 149, 708-21	56.2	655
77	Human P301L-mutant tau expression in mouse entorhinal-hippocampal network causes tau aggregation and presynaptic pathology but no cognitive deficits. <i>PLoS ONE</i> , 2012 , 7, e45881	3.7	90
76	The many faces of tau. <i>Neuron</i> , 2011 , 70, 410-26	13.9	617
75	Reversing EphB2 depletion rescues cognitive functions in Alzheimer model. <i>Nature</i> , 2011 , 469, 47-52	50.4	317
74	Amyloid- β /Fyn-induced synaptic, network, and cognitive impairments depend on tau levels in multiple mouse models of Alzheimer's disease. <i>Journal of Neuroscience</i> , 2011 , 31, 700-11	6.6	479
73	Ablation of cellular prion protein does not ameliorate abnormal neural network activity or cognitive dysfunction in the J20 line of human amyloid precursor protein transgenic mice. <i>Journal of Neuroscience</i> , 2011 , 31, 10427-31	6.6	98
72	Quantifying biomarkers of cognitive dysfunction and neuronal network hyperexcitability in mouse models of Alzheimer's disease: depletion of calcium-dependent proteins and inhibitory hippocampal remodeling. <i>Methods in Molecular Biology</i> , 2011 , 670, 245-62	1.4	47
71	Amyloid-beta-induced neuronal dysfunction in Alzheimer's disease: from synapses toward neural networks. <i>Nature Neuroscience</i> , 2010 , 13, 812-8	25.5	1106
70	Many neuronal and behavioral impairments in transgenic mouse models of Alzheimer's disease are independent of caspase cleavage of the amyloid precursor protein. <i>Journal of Neuroscience</i> , 2010 , 30, 372-81	6.6	111

69	Phospholipase A2 and arachidonic acid in Alzheimer's disease. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2010 , 1801, 784-90	5	93
68	Transsynaptic progression of amyloid- β -induced neuronal dysfunction within the entorhinal-hippocampal network. <i>Neuron</i> , 2010 , 68, 428-41	13.9	237
67	Cellular source of apolipoprotein E4 determines neuronal susceptibility to excitotoxic injury in transgenic mice. <i>American Journal of Pathology</i> , 2010 , 177, 563-9	5.8	45
66	Tau reduction prevents Abeta-induced defects in axonal transport. <i>Science</i> , 2010 , 330, 198	33.3	378
65	Synaptic depression and aberrant excitatory network activity in Alzheimer's disease: two faces of the same coin?. <i>NeuroMolecular Medicine</i> , 2010 , 12, 48-55	4.6	108
64	Neprilysin overexpression inhibits plaque formation but fails to reduce pathogenic Abeta oligomers and associated cognitive deficits in human amyloid precursor protein transgenic mice. <i>Journal of Neuroscience</i> , 2009 , 29, 1977-86	6.6	111
63	Epilepsy and cognitive impairments in Alzheimer disease. <i>Archives of Neurology</i> , 2009 , 66, 435-40		458
62	Collagen VI protects neurons against Abeta toxicity. <i>Nature Neuroscience</i> , 2009 , 12, 119-21	25.5	90
61	Phospholipase A2 reduction ameliorates cognitive deficits in a mouse model of Alzheimer's disease. <i>Nature Neuroscience</i> , 2008 , 11, 1311-8	25.5	265
60	Altered navigational strategy use and visuospatial deficits in hAPP transgenic mice. <i>Neurobiology of Aging</i> , 2008 , 29, 253-66	5.6	44
59	Paths of convergence: sirtuins in aging and neurodegeneration. <i>Neuron</i> , 2008 , 58, 10-4	13.9	153
58	Enkephalin elevations contribute to neuronal and behavioral impairments in a transgenic mouse model of Alzheimer's disease. <i>Journal of Neuroscience</i> , 2008 , 28, 5007-17	6.6	62
57	Accelerating amyloid-beta fibrillization reduces oligomer levels and functional deficits in Alzheimer disease mouse models. <i>Journal of Biological Chemistry</i> , 2007 , 282, 23818-28	5.4	318
56	Reelin depletion in the entorhinal cortex of human amyloid precursor protein transgenic mice and humans with Alzheimer's disease. <i>Journal of Neuroscience</i> , 2007 , 27, 2727-33	6.6	132
55	Aberrant excitatory neuronal activity and compensatory remodeling of inhibitory hippocampal circuits in mouse models of Alzheimer's disease. <i>Neuron</i> , 2007 , 55, 697-711	13.9	1038
54	Reducing endogenous tau ameliorates amyloid beta-induced deficits in an Alzheimer's disease mouse model. <i>Science</i> , 2007 , 316, 750-4	33.3	1431
53	PKCepsilon increases endothelin converting enzyme activity and reduces amyloid plaque pathology in transgenic mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 8215-20	11.5	107
52	Reduction in mitochondrial superoxide dismutase modulates Alzheimer's disease-like pathology and accelerates the onset of behavioral changes in human amyloid precursor protein transgenic mice. <i>Journal of Neuroscience</i> , 2006 , 26, 5167-79	6.6	194

51	100 years and counting: prospects for defeating Alzheimer's disease. <i>Science</i> , 2006 , 314, 781-4	33.3	444
50	Antiamyloidogenic and neuroprotective functions of cathepsin B: implications for Alzheimer's disease. <i>Neuron</i> , 2006 , 51, 703-14	13.9	300
49	Deficiency in neuronal TGF-beta signaling promotes neurodegeneration and Alzheimer's pathology. <i>Journal of Clinical Investigation</i> , 2006 , 116, 3060-9	15.9	246
48	A network dysfunction perspective on neurodegenerative diseases. <i>Nature</i> , 2006 , 443, 768-73	50.4	489
47	Fyn kinase induces synaptic and cognitive impairments in a transgenic mouse model of Alzheimer's disease. <i>Journal of Neuroscience</i> , 2005 , 25, 9694-703	6.6	252
46	SIRT1 protects against microglia-dependent amyloid-beta toxicity through inhibiting NF-kappaB signaling. <i>Journal of Biological Chemistry</i> , 2005 , 280, 40364-74	5.4	569
45	Vulnerability of dentate granule cells to disruption of arc expression in human amyloid precursor protein transgenic mice. <i>Journal of Neuroscience</i> , 2005 , 25, 9686-93	6.6	130
44	High beta-secretase activity elicits neurodegeneration in transgenic mice despite reductions in amyloid-beta levels: implications for the treatment of Alzheimer disease. <i>Journal of Biological Chemistry</i> , 2005 , 280, 32957-67	5.4	79
43	Neuron-specific apolipoprotein e4 proteolysis is associated with increased tau phosphorylation in brains of transgenic mice. <i>Journal of Neuroscience</i> , 2004 , 24, 2527-34	6.6	289
42	Fyn kinase modulates synaptotoxicity, but not aberrant sprouting, in human amyloid precursor protein transgenic mice. <i>Journal of Neuroscience</i> , 2004 , 24, 4692-7	6.6	140
41	Intracellularly generated amyloid-beta peptide counteracts the antiapoptotic function of its precursor protein and primes proapoptotic pathways for activation by other insults in neuroblastoma cells. <i>Journal of Neurochemistry</i> , 2004 , 91, 1260-74	6	26
40	Aggressive amyloidosis in mice expressing human amyloid peptides with the Arctic mutation. <i>Nature Medicine</i> , 2004 , 10, 1190-2	50.5	111
39	Apolipoprotein E: diversity of cellular origins, structural and biophysical properties, and effects in Alzheimer's disease. <i>Journal of Molecular Neuroscience</i> , 2004 , 23, 189-204	3.3	144
38	Food for thought: essential fatty acid protects against neuronal deficits in transgenic mouse model of AD. <i>Neuron</i> , 2004 , 43, 596-9	13.9	2
37	Neuronal depletion of calcium-dependent proteins in the dentate gyrus is tightly linked to Alzheimer's disease-related cognitive deficits. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 9572-7	11.5	322
36	Carboxyl-terminal-truncated apolipoprotein E4 causes Alzheimer's disease-like neurodegeneration and behavioral deficits in transgenic mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 10966-71	11.5	268
35	Androgens protect against apolipoprotein E4-induced cognitive deficits. <i>Journal of Neuroscience</i> , 2002 , 22, 5204-9	6.6	161
34	Modulation of Alzheimer-like synaptic and cholinergic deficits in transgenic mice by human apolipoprotein E depends on isoform, aging, and overexpression of amyloid beta peptides but not on plaque formation. <i>Journal of Neuroscience</i> , 2002 , 22, 10539-48	6.6	165

33	Inflammation in neurodegenerative disease--a double-edged sword. <i>Neuron</i> , 2002 , 35, 419-32	13.9	927
32	TGF-beta1 promotes microglial amyloid-beta clearance and reduces plaque burden in transgenic mice. <i>Nature Medicine</i> , 2001 , 7, 612-8	50.5	507
31	Apolipoprotein E and cognitive performance. <i>Nature</i> , 2000 , 404, 352-4	50.4	193
30	Hypothalamic-pituitary-adrenal dysfunction in Apoe(-/-) mice: possible role in behavioral and metabolic alterations. <i>Journal of Neuroscience</i> , 2000 , 20, 2064-71	6.6	106
29	High-level neuronal expression of abeta 1-42 in wild-type human amyloid protein precursor transgenic mice: synaptotoxicity without plaque formation. <i>Journal of Neuroscience</i> , 2000 , 20, 4050-8	6.6	1507
28	Chronic overproduction of transforming growth factor-beta1 by astrocytes promotes Alzheimer's disease-like microvascular degeneration in transgenic mice. <i>American Journal of Pathology</i> , 2000 , 156, 139-50	5.8	202
27	Astroglial expression of human alpha(1)-antichymotrypsin enhances alzheimer-like pathology in amyloid protein precursor transgenic mice. <i>American Journal of Pathology</i> , 2000 , 157, 2003-10	5.8	100
26	Dopaminergic loss and inclusion body formation in alpha-synuclein mice: implications for neurodegenerative disorders. <i>Science</i> , 2000 , 287, 1265-9	33.3	1526
25	Expression of human apolipoprotein E3 or E4 in the brains of Apoe-/- mice: isoform-specific effects on neurodegeneration. <i>Journal of Neuroscience</i> , 1999 , 19, 4867-80	6.6	311
24	Genetically-targeted and conditionally-regulated ablation of astroglial cells in the central, enteric and peripheral nervous systems in adult transgenic mice. <i>Brain Research</i> , 1999 , 835, 91-5	3.7	46
23	Leukocyte infiltration, neuronal degeneration, and neurite outgrowth after ablation of scar-forming, reactive astrocytes in adult transgenic mice. <i>Neuron</i> , 1999 , 23, 297-308	13.9	822
22	Elimination of the class A scavenger receptor does not affect amyloid plaque formation or neurodegeneration in transgenic mice expressing human amyloid protein precursors. <i>American Journal of Pathology</i> , 1999 , 155, 1741-7	5.8	59
21	Novel role of human CD4 molecule identified in neurodegeneration. <i>Nature Medicine</i> , 1998 , 4, 441-6	50.5	24
20	Fulminant jejuno-ileitis following ablation of enteric glia in adult transgenic mice. <i>Cell</i> , 1998 , 93, 189-201	56.2	453
19	Amyloid protein precursor stimulates excitatory amino acid transport. Implications for roles in neuroprotection and pathogenesis. <i>Journal of Biological Chemistry</i> , 1998 , 273, 12548-54	5.4	44
18	Corticotropin-releasing factor and adrenocorticotrophic hormone as potential central mediators of OB effects. <i>Journal of Biological Chemistry</i> , 1997 , 272, 15057-60	5.4	68
17	Cellular signaling roles of TGF beta, TNF alpha and beta APP in brain injury responses and Alzheimer's disease. <i>Brain Research Reviews</i> , 1997 , 23, 47-61		221
16	Astroglial overproduction of TGF-beta 1 enhances inflammatory central nervous system disease in transgenic mice. <i>Journal of Neuroimmunology</i> , 1997 , 77, 45-50	3.5	135

15	Amyloidogenic role of cytokine TGF-beta1 in transgenic mice and in Alzheimer's disease. <i>Nature</i> , 1997 , 389, 603-6	50.4	366
14	Comparison of neurodegenerative pathology in transgenic mice overexpressing V717F beta-amyloid precursor protein and Alzheimer's disease. <i>Journal of Neuroscience</i> , 1996 , 16, 5795-811	6.6	350
13	Spatial learning deficit in mice expressing human 751-amino acid beta-amyloid precursor protein. <i>NeuroReport</i> , 1996 , 7, 2807-11	1.7	54
12	Central nervous system expression of HIV-1 Gp120 activates the hypothalamic-pituitary-adrenal axis: evidence for involvement of NMDA receptors and nitric oxide synthase. <i>Virology</i> , 1996 , 226, 362-73	3.6	47
11	Prevention of HIV-1 gp120-induced neuronal damage in the central nervous system of transgenic mice by the NMDA receptor antagonist memantine. <i>Brain Research</i> , 1996 , 706, 303-7	3.7	125
10	Neurite outgrowth on non-permissive substrates in vitro is enhanced by ectopic expression of the neural adhesion molecule L1 by mouse astrocytes. <i>European Journal of Neuroscience</i> , 1996 , 8, 1085-97	3.5	38
9	Beta-secretase processing of the beta-amyloid precursor protein in transgenic mice is efficient in neurons but inefficient in astrocytes. <i>Journal of Biological Chemistry</i> , 1996 , 271, 31407-11	5.4	74
8	Alzheimer-type neuropathology in transgenic mice overexpressing V717F beta-amyloid precursor protein. <i>Nature</i> , 1995 , 373, 523-7	50.4	2238
7	Levels and alternative splicing of amyloid beta protein precursor (APP) transcripts in brains of APP transgenic mice and humans with Alzheimer's disease. <i>Journal of Biological Chemistry</i> , 1995 , 270, 28257-64	5.4	206
6	Neuron-specific expression of a hamster prion protein minigene in transgenic mice induces susceptibility to hamster scrapie agent. <i>Neuron</i> , 1995 , 15, 1183-91	13.9	133
5	gp120 and neurotoxicity in vivo. <i>Trends in Pharmacological Sciences</i> , 1995 , 16, 122	13.2	17
4	Indicator expression directed by regulatory sequences of the glial fibrillary acidic protein (GFAP) gene: in vivo comparison of distinct GFAP-lacZ transgenes. <i>Glia</i> , 1995 , 13, 174-84	9	71
3	Central nervous system damage produced by expression of the HIV-1 coat protein gp120 in transgenic mice. <i>Nature</i> , 1994 , 367, 188-93	50.4	604
2	Astrocytes in infectious and immune-mediated diseases of the central nervous system. <i>FASEB Journal</i> , 1993 , 7, 1226-32	0.9	185
1	Androgen Treatment Reduces Cognitive Deficits in Female apoE4 Transgenic Mice	747-757	