

Mathias Jucker

List of Publications by Year in descending order

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Version: 2024-02-01

121
papers

19,808
citations

20817

60
h-index

18647

119
g-index

132
all docs

132
docs citations

132
times ranked

20141
citing authors

#	ARTICLE	IF	CITATIONS
1	Transmission and spreading of tauopathy in transgenic mouse brain. <i>Nature Cell Biology</i> , 2009, 11, 909-913.	10.3	1,515
2	The Amyloid State of Proteins in Human Diseases. <i>Cell</i> , 2012, 148, 1188-1203.	28.9	1,496
3	Self-propagation of pathogenic protein aggregates in neurodegenerative diseases. <i>Nature</i> , 2013, 501, 45-51.	27.8	1,331
4	Exogenous Induction of Cerebral β -Amyloidogenesis Is Governed by Agent and Host. <i>Science</i> , 2006, 313, 1781-1784.	12.6	875
5	β 42-driven cerebral amyloidosis in transgenic mice reveals early and robust pathology. <i>EMBO Reports</i> , 2006, 7, 940-946.	4.5	832
6	Serum neurofilament dynamics predicts neurodegeneration and clinical progression in presymptomatic Alzheimer's disease. <i>Nature Medicine</i> , 2019, 25, 277-283.	30.7	610
7	Innate immune memory in the brain shapes neurological disease hallmarks. <i>Nature</i> , 2018, 556, 332-338.	27.8	605
8	Pathogenic protein seeding in Alzheimer disease and other neurodegenerative disorders. <i>Annals of Neurology</i> , 2011, 70, 532-540.	5.3	536
9	Peripherally Applied β -Containing Inoculates Induce Cerebral β -Amyloidosis. <i>Science</i> , 2010, 330, 980-982.	12.6	519
10	Neuron loss in APP transgenic mice. <i>Nature</i> , 1998, 395, 755-756.	27.8	474
11	Cryo-EM structure and polymorphism of β amyloid fibrils purified from Alzheimer's brain tissue. <i>Nature Communications</i> , 2019, 10, 4760.	12.8	411
12	Formation and maintenance of Alzheimer's disease β -amyloid plaques in the absence of microglia. <i>Nature Neuroscience</i> , 2009, 12, 1361-1363.	14.8	390
13	β is targeted to the vasculature in a mouse model of hereditary cerebral hemorrhage with amyloidosis. <i>Nature Neuroscience</i> , 2004, 7, 954-960.	14.8	367
14	The Alzheimer's Association external quality control program for cerebrospinal fluid biomarkers. <i>Alzheimer's and Dementia</i> , 2011, 7, 386.	0.8	354
15	A soluble phosphorylated tau signature links tau, amyloid and the evolution of stages of dominantly inherited Alzheimer's disease. <i>Nature Medicine</i> , 2020, 26, 398-407.	30.7	351
16	CSF biomarker variability in the Alzheimer's Association quality control program. <i>Alzheimer's and Dementia</i> , 2013, 9, 251-261.	0.8	344
17	Association of Microglia with Amyloid Plaques in Brains of APP23 Transgenic Mice. <i>American Journal of Pathology</i> , 1999, 154, 1673-1684.	3.8	304
18	The benefits and limitations of animal models for translational research in neurodegenerative diseases. <i>Nature Medicine</i> , 2010, 16, 1210-1214.	30.7	301

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19	Novel Pentameric Thiophene Derivatives for <i>in Vitro</i> and <i>in Vivo</i> Optical Imaging of a Plethora of Protein Aggregates in Cerebral Amyloidoses. <i>ACS Chemical Biology</i> , 2009, 4, 673-684.	3.4	290
20	Neurofilament Light Chain in Blood and CSF as Marker of Disease Progression in Mouse Models and in Neurodegenerative Diseases. <i>Neuron</i> , 2016, 91, 56-66.	8.1	289
21	Propagation and spread of pathogenic protein assemblies in neurodegenerative diseases. <i>Nature Neuroscience</i> , 2018, 21, 1341-1349.	14.8	289
22	Spontaneous Hemorrhagic Stroke in a Mouse Model of Cerebral Amyloid Angiopathy. <i>Journal of Neuroscience</i> , 2001, 21, 1619-1627.	3.6	281
23	Neurodegenerative Diseases: Expanding the Prion Concept. <i>Annual Review of Neuroscience</i> , 2015, 38, 87-103.	10.7	278
24	Microglia turnover with aging and in an Alzheimer's model via long-term <i>in vivo</i> single-cell imaging. <i>Nature Neuroscience</i> , 2017, 20, 1371-1376.	14.8	277
25	Homeostatic and injury-induced microglia behavior in the aging brain. <i>Aging Cell</i> , 2014, 13, 60-69.	6.7	259
26	Induction of cerebral β -amyloidosis: Intracerebral versus systemic β inoculation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 12926-12931.	7.1	249
27	Induction of Tau Pathology by Intracerebral Infusion of Amyloid- β -Containing Brain Extract and by Amyloid- β Deposition in APP Δ -Tau Transgenic Mice. <i>American Journal of Pathology</i> , 2007, 171, 2012-2020.	3.8	239
28	Microglial repopulation model reveals a robust homeostatic process for replacing CNS myeloid cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 18150-18155.	7.1	210
29	Soluble β Seeds Are Potent Inducers of Cerebral β -Amyloid Deposition. <i>Journal of Neuroscience</i> , 2011, 31, 14488-14495.	3.6	203
30	Amyloid-Associated Neuron Loss and Gliogenesis in the Neocortex of Amyloid Precursor Protein Transgenic Mice. <i>Journal of Neuroscience</i> , 2002, 22, 515-522.	3.6	199
31	Longitudinal cognitive and biomarker changes in dominantly inherited Alzheimer disease. <i>Neurology</i> , 2018, 91, e1295-e1306.	1.1	193
32	Cerebral Amyloid Induces Aberrant Axonal Sprouting and Ectopic Terminal Formation in Amyloid Precursor Protein Transgenic Mice. <i>Journal of Neuroscience</i> , 1999, 19, 8552-8559.	3.6	183
33	Amyloid polymorphisms constitute distinct clouds of conformational variants in different etiological subtypes of Alzheimer's disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 13018-13023.	7.1	170
34	Changes in Amyloid- β and Tau in the Cerebrospinal Fluid of Transgenic Mice Overexpressing Amyloid Precursor Protein. <i>Science Translational Medicine</i> , 2013, 5, 194re2.	12.4	166
35	Invasion of Hematopoietic Cells into the Brain of Amyloid Precursor Protein Transgenic Mice. <i>Journal of Neuroscience</i> , 2005, 25, 11125-11132.	3.6	164
36	Cystatin C modulates cerebral β -amyloidosis. <i>Nature Genetics</i> , 2007, 39, 1437-1439.	21.4	151

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37	Mechanism of Cerebral β -Amyloid Angiopathy: Murine and Cellular Models. <i>Brain Pathology</i> , 2006, 16, 40-54.	4.1	150
38	Comment on "ApoE-Directed Therapeutics Rapidly Clear β -Amyloid and Reverse Deficits in AD Mouse Models". <i>Science</i> , 2013, 340, 924-924.	12.6	136
39	Long-Term <i>In Vivo</i> Imaging of β -Amyloid Plaque Appearance and Growth in a Mouse Model of Cerebral β -Amyloidosis. <i>Journal of Neuroscience</i> , 2011, 31, 624-629.	3.6	126
40	Seeded strain-like transmission of β -amyloid morphotypes in APP transgenic mice. <i>EMBO Reports</i> , 2013, 14, 1017-1022.	4.5	118
41	Extracellular amyloid formation and associated pathology in neural grafts. <i>Nature Neuroscience</i> , 2003, 6, 370-377.	14.8	115
42	Exogenous seeding of cerebral β -amyloid deposition in β APP transgenic rats. <i>Journal of Neurochemistry</i> , 2012, 120, 660-666.	3.9	111
43	Blood Platelets in the Progression of Alzheimer's Disease. <i>PLoS ONE</i> , 2014, 9, e90523.	2.5	111
44	Longitudinal PET-MRI reveals β -amyloid deposition and rCBF dynamics and connects vascular amyloidosis to quantitative loss of perfusion. <i>Nature Medicine</i> , 2014, 20, 1485-1492.	30.7	108
45	Murine models of brain aging and age-related neurodegenerative diseases. <i>Behavioural Brain Research</i> , 1997, 85, 1-25.	2.2	102
46	Evidence for Age-Dependent <i>In Vivo</i> Conformational Rearrangement within $A\beta$ Amyloid Deposits. <i>ACS Chemical Biology</i> , 2013, 8, 1128-1133.	3.4	93
47	Inducible proteopathies. <i>Trends in Neurosciences</i> , 2006, 29, 438-443.	8.6	92
48	The presence of $A\beta$ seeds, and not age per se, is critical to the initiation of $A\beta$ deposition in the brain. <i>Acta Neuropathologica</i> , 2012, 123, 31-37.	7.7	91
49	Left frontal hub connectivity delays cognitive impairment in autosomal-dominant and sporadic Alzheimer's disease. <i>Brain</i> , 2018, 141, 1186-1200.	7.6	83
50	A physics-based model explains the prion-like features of neurodegeneration in Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 124, 264-281.	4.8	83
51	Replacement of brain-resident myeloid cells does not alter cerebral amyloid- β deposition in mouse models of Alzheimer's disease. <i>Journal of Experimental Medicine</i> , 2015, 212, 1803-1809.	8.5	81
52	The value of incomplete mouse models of Alzheimer's disease. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2008, 35, 70-74.	6.4	79
53	Multiple Factors Contribute to the Peripheral Induction of Cerebral β -Amyloidosis. <i>Journal of Neuroscience</i> , 2014, 34, 10264-10273.	3.6	76
54	The Exceptional Vulnerability of Humans to Alzheimer's Disease. <i>Trends in Molecular Medicine</i> , 2017, 23, 534-545.	6.7	74

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55	Emerging cerebrospinal fluid biomarkers in autosomal dominant Alzheimer's disease. <i>Alzheimer's and Dementia</i> , 2019, 15, 655-665.	0.8	72
56	Soluble TREM2 in CSF and its association with other biomarkers and cognition in autosomal-dominant Alzheimer's disease: a longitudinal observational study. <i>Lancet Neurology</i> , The, 2022, 21, 329-341.	10.2	72
57	The Prion-Like Properties of Amyloid- β^2 Assemblies: Implications for Alzheimer's Disease. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2016, 6, a024398.	6.2	71
58	Prion-like spreading of Alzheimer's disease within the brain's connectome. <i>Journal of the Royal Society Interface</i> , 2019, 16, 20190356.	3.4	71
59	Koch's postulates and infectious proteins. <i>Acta Neuropathologica</i> , 2006, 112, 1-4.	7.7	69
60	Early onset amyloid lesions lead to severe neuritic abnormalities and local, but not global neuron loss in APPPS1 transgenic mice. <i>Neurobiology of Aging</i> , 2011, 32, 2324.e1-2324.e6.	3.1	67
61	Modeling familial Danish dementia in mice supports the concept of the amyloid hypothesis of Alzheimer's disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 7969-7974.	7.1	65
62	CSF progranulin increases in the course of Alzheimer's disease and is associated with sTREM2, neurodegeneration and cognitive decline. <i>EMBO Molecular Medicine</i> , 2018, 10, .	6.9	64
63	Mechanisms of Cerebrovascular Amyloid Deposition: Lessons from Mouse Models. <i>Annals of the New York Academy of Sciences</i> , 2000, 903, 307-316.	3.8	62
64	Highly potent soluble amyloid- β^2 seeds in human Alzheimer brain but not cerebrospinal fluid. <i>Brain</i> , 2014, 137, 2909-2915.	7.6	61
65	$A\beta^2$ seeds resist inactivation by formaldehyde. <i>Acta Neuropathologica</i> , 2014, 128, 477-484.	7.7	58
66	Pharmacological BACE1 and BACE2 inhibition induces hair depigmentation by inhibiting PMEL17 processing in mice. <i>Scientific Reports</i> , 2016, 6, 21917.	3.3	56
67	Acute targeting of pre-amyloid seeds in transgenic mice reduces Alzheimer-like pathology later in life. <i>Nature Neuroscience</i> , 2020, 23, 1580-1588.	14.8	53
68	Persistence of $A\beta^2$ seeds in APP null mouse brain. <i>Nature Neuroscience</i> , 2015, 18, 1559-1561.	14.8	51
69	Relationship between physical activity, cognition, and Alzheimer pathology in autosomal dominant Alzheimer's disease. <i>Alzheimer's and Dementia</i> , 2018, 14, 1427-1437.	0.8	51
70	Potential human transmission of amyloid β^2 pathology: surveillance and risks. <i>Lancet Neurology</i> , The, 2020, 19, 872-878.	10.2	46
71	Progression of Seed-Induced A β^2 Deposition within the Limbic Connectome. <i>Brain Pathology</i> , 2015, 25, 743-752.	4.1	45
72	Distinct Spacing Between Anionic Groups: An Essential Chemical Determinant for Achieving Thiophene-Based Ligands to Distinguish β^2 -Amyloid or Tau Polymorphic Aggregates. <i>Chemistry - A European Journal</i> , 2015, 21, 9072-9082.	3.3	44

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73	LAG3 is not expressed in human and murine neurons and does not modulate β -synucleinopathies. <i>EMBO Molecular Medicine</i> , 2021, 13, e14745.	6.9	44
74	Amyloid- β pathology induced in humans. <i>Nature</i> , 2015, 525, 193-194.	27.8	43
75	Accelerated functional brain aging in pre-clinical familial Alzheimer's disease. <i>Nature Communications</i> , 2021, 12, 5346.	12.8	43
76	Increased CSF $A\beta$ during the very early phase of cerebral $A\beta$ deposition in mouse models. <i>EMBO Molecular Medicine</i> , 2015, 7, 895-903.	6.9	42
77	Conversion of Synthetic $A\beta$ to <i>In Vivo</i> Active Seeds and Amyloid Plaque Formation in a Hippocampal Slice Culture Model. <i>Journal of Neuroscience</i> , 2016, 36, 5084-5093.	3.6	41
78	$A\beta$ seeding potency peaks in the early stages of cerebral β -amyloidosis. <i>EMBO Reports</i> , 2017, 18, 1536-1544.	4.5	38
79	BRI2 Protein Regulates β -Amyloid Degradation by Increasing Levels of Secreted Insulin-degrading Enzyme (IDE). <i>Journal of Biological Chemistry</i> , 2011, 286, 37446-37457.	3.4	37
80	Spectral Discrimination of Cerebral Amyloid Lesions after Peripheral Application of Luminescent Conjugated Oligothiophenes. <i>American Journal of Pathology</i> , 2012, 181, 1953-1960.	3.8	36
81	Clinical, pathophysiological and genetic features of motor symptoms in autosomal dominant Alzheimer's disease. <i>Brain</i> , 2019, 142, 1429-1440.	7.6	36
82	Independent Effects of Intra- and Extracellular $A\beta$ on Learning-Related Gene Expression. <i>American Journal of Pathology</i> , 2009, 175, 271-282.	3.8	35
83	Prevention of tau increase in cerebrospinal fluid of APP transgenic mice suggests downstream effect of BACE1 inhibition. <i>Alzheimer's and Dementia</i> , 2017, 13, 701-709.	0.8	35
84	Sequence of Alzheimer disease biomarker changes in cognitively normal adults. <i>Neurology</i> , 2020, 95, e3104-e3116.	1.1	35
85	Vessel ultrastructure in APP23 transgenic mice after passive anti- $A\beta$ immunotherapy and subsequent intracerebral hemorrhage. <i>Neurobiology of Aging</i> , 2007, 28, 202-212.	3.1	34
86	Formaldehyde-fixed brain tissue from spontaneously ill β -synuclein transgenic mice induces fatal β -synucleinopathy in transgenic hosts. <i>Acta Neuropathologica</i> , 2015, 129, 157-159.	7.7	34
87	Immunization targeting a minor plaque constituent clears β -amyloid and rescues behavioral deficits in an Alzheimer's disease mouse model. <i>Neurobiology of Aging</i> , 2013, 34, 137-145.	3.1	33
88	Serum neurofilament light chain levels are associated with white matter integrity in autosomal dominant Alzheimer's disease. <i>Neurobiology of Disease</i> , 2020, 142, 104960.	4.4	31
89	Membrane-Anchored $A\beta$ Accelerates Amyloid Formation and Exacerbates Amyloid-Associated Toxicity in Mice. <i>Journal of Neuroscience</i> , 2013, 33, 19284-19294.	3.6	30
90	A neuronal blood marker is associated with mortality in old age. <i>Nature Aging</i> , 2021, 1, 218-225.	11.6	30

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91	Cerebral and Peripheral Amyloid Phagocytes – an Old Liaison with a New Twist. <i>Neuron</i> , 2008, 59, 8-10.	8.1	29
92	Repeatable target localization for long-term in vivo imaging of mice with 2-photon microscopy. <i>Journal of Neuroscience Methods</i> , 2012, 205, 357-363.	2.5	29
93	A β^2 seeds and prions: How close the fit?. <i>Prion</i> , 2017, 11, 215-225.	1.8	29
94	Amyloid by default. <i>Nature Neuroscience</i> , 2011, 14, 669-670.	14.8	28
95	Cerebral amyloidosis associated with cognitive decline in autosomal dominant Alzheimer disease. <i>Neurology</i> , 2015, 85, 790-798.	1.1	27
96	Soluble TAM receptors sAXL and sTyro3 predict structural and functional protection in Alzheimer – TM's disease. <i>Neuron</i> , 2022, 110, 1009-1022.e4.	8.1	27
97	Cerebral β^2 -Amyloidosis in Mice Investigated by Ultramicroscopy. <i>PLoS ONE</i> , 2015, 10, e0125418.	2.5	26
98	Comparison of CSF biomarkers in Down syndrome and autosomal dominant Alzheimer's disease: a cross-sectional study. <i>Lancet Neurology</i> , The, 2021, 20, 615-626.	10.2	26
99	CSF p-tau increase in response to A β^2 -type and Danish-type cerebral amyloidosis and in the absence of neurofibrillary tangles. <i>Acta Neuropathologica</i> , 2022, 143, 287-290.	7.7	25
100	No Dopamine Cell Loss or Changes in Cytoskeleton Function in Transgenic Mice Expressing Physiological Levels of Wild Type or G2019S Mutant LRRK2 and in Human Fibroblasts. <i>PLoS ONE</i> , 2015, 10, e0118947.	2.5	24
101	Risk of Transmissibility From Neurodegenerative Disease-Associated Proteins: Experimental Knowns and Unknowns. <i>Journal of Neuropathology and Experimental Neurology</i> , 2020, 79, 1141-1146.	1.7	24
102	Association of Longitudinal Changes in Cerebrospinal Fluid Total Tau and Phosphorylated Tau 181 and Brain Atrophy With Disease Progression in Patients With Alzheimer Disease. <i>JAMA Network Open</i> , 2019, 2, e1917126.	5.9	23
103	Medin aggregation causes cerebrovascular dysfunction in aging wild-type mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 23925-23931.	7.1	20
104	Prominent microglial inclusions in transgenic mouse models of β^2 -synucleinopathy that are distinct from neuronal lesions. <i>Acta Neuropathologica Communications</i> , 2020, 8, 133.	5.2	20
105	Microglial inclusions and neurofilament light chain release follow neuronal β^2 -synuclein lesions in long-term brain slice cultures. <i>Molecular Neurodegeneration</i> , 2021, 16, 54.	10.8	20
106	BACE1 and Mutated Presenilin-1 Differently Modulate A β^240 and A β^242 Levels and Cerebral Amyloidosis in APPDutch Transgenic Mice. <i>Neurodegenerative Diseases</i> , 2007, 4, 127-135.	1.4	19
107	Highly potent intracellular membrane-associated A β^2 seeds. <i>Scientific Reports</i> , 2016, 6, 28125.	3.3	18
108	Early A β^2 reduction prevents progression of cerebral amyloid angiopathy. <i>Annals of Neurology</i> , 2019, 86, 561-571.	5.3	18

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109	Autosomal dominantly inherited alzheimer disease: Analysis of genetic subgroups by machine learning. Information Fusion, 2020, 58, 153-167.	19.1	17
110	E22Q-Mutant A β Peptide (A β Dutch) Increases Vascular but Reduces Parenchymal A β Deposition. American Journal of Pathology, 2009, 174, 722-726.	3.8	15
111	Association of <i>BDNF</i> Val66Met With Tau Hyperphosphorylation and Cognition in Dominantly Inherited Alzheimer Disease. JAMA Neurology, 2022, 79, 261.	9.0	15
112	Signatures of glial activity can be detected in the CSF proteome. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	12
113	Endogenous murine A β increases amyloid deposition in APP23 but not in APPPS1 transgenic mice. Neurobiology of Aging, 2015, 36, 2241-2247.	3.1	9
114	Infectious prions do not induce A β deposition in an in vivo seeding model. Acta Neuropathologica, 2018, 135, 965-967.	7.7	8
115	Diagnostic Value of Subjective Memory Complaints Assessed with a Single Item in Dominantly Inherited Alzheimer's Disease: Results of the DIAN Study. BioMed Research International, 2015, 2015, 1-7.	1.9	7
116	Immune receptor for pathogenic α -synuclein. Science, 2016, 353, 1498-1499.	12.6	5
117	Different rates of cognitive decline in autosomal dominant and late-onset Alzheimer disease. Alzheimer's and Dementia, 2022, 18, 1754-1764.	0.8	4
118	The Prion-Like Aspect of Alzheimer Pathology. Research and Perspectives in Alzheimer's Disease, 2013, , 61-69.	0.1	2
119	Biomarker clustering in autosomal dominant Alzheimer's disease. Alzheimer's and Dementia, 2023, 19, 274-284.	0.8	2
120	The Malignant Protein Puzzle. Cerebrum: the Dana Forum on Brain Science, 2016, 2016, .	0.1	0
121	Alzheimer: Wie man nach einer kausalen Therapie sucht. , 0, , .		0