Roland Brandt

List of Publications by Citations

87 papers	4,885 citations	38 h-index	69 g-index
99 ext. papers	5,613 ext. citations	5.1 avg, IF	5.47 L-index

#	Paper	IF	Citations
87	Interaction of tau with the neural plasma membrane mediated by tau's amino-terminal projection domain. *Journal of Cell Biology*, **1995**, 131, 1327-40	7.3	515
86	CD95 ligand (Fas-L/APO-1L) and tumor necrosis factor-related apoptosis-inducing ligand mediate ischemia-induced apoptosis in neurons. *Journal of Neuroscience*, **1999**, 19, 3809-17	6.6	371
85	Molecular interactions among protein phosphatase 2A, tau, and microtubules. Implications for the regulation of tau phosphorylation and the development of tauopathies. *Journal of Biological Chemistry*, **1999**, 274, 25490-8	5.4	233
84	Process outgrowth of oligodendrocytes is promoted by interaction of fyn kinase with the cytoskeletal protein tau. *Journal of Neuroscience*, **2002**, 22, 698-707	6.6	202
83	Tau binds to the distal axon early in development of polarity in a microtubule- and microfilament-dependent manner. *Journal of Neuroscience*, **1996**, 16, 5583-92	6.6	188
82	Tau-mediated cytotoxicity in a pseudohyperphosphorylation model of Alzheimer's disease. *Journal of Neuroscience*, **2002**, 22, 9733-41	6.6	182
81	Interaction of tau with the neural membrane cortex is regulated by phosphorylation at sites that are modified in paired helical filaments. *Journal of Biological Chemistry*, **2000**, 275, 15733-40	5.4	170
80	Tau alteration and neuronal degeneration in tauopathies: mechanisms and models. *Biochimica Et Biophysica Acta - Molecular Basis of Disease*, **2005**, 1739, 331-54	6.9	154
79	Functions and malfunctions of the tau proteins. *Cellular and Molecular Life Sciences*, **2002**, 59, 1668-80	10.3	127
78	Divergent pathways mediate spine alterations and cell death induced by amyloid-beta, wild-type tau, and R406W tau. *Journal of Neuroscience*, **2009**, 29, 14439-50	6.6	106
77	Single-molecule tracking of tau reveals fast kiss-and-hop interaction with microtubules in living neurons. *Molecular Biology of the Cell*, **2014**, 25, 3541-51	3.5	101
76	NMDA receptor subunit composition determines beta-amyloid-induced neurodegeneration and synaptic loss. *Cell Death and Disease*, **2013**, 4, e608	9.8	97
75	Structural and functional implications of tau hyperphosphorylation: information from phosphorylation-mimicking mutated tau proteins. *Biochemistry*, **2000**, 39, 13166-75	3.2	97
74	Conversion of serine to aspartate imitates phosphorylation-induced changes in the structure and function of microtubule-associated protein tau. *Journal of Biological Chemistry*, **1997**, 272, 8441-6	5.4	95
73	The frontotemporal dementia mutation R406W blocks tau's interaction with the membrane in an annexin A2-dependent manner. *Journal of Cell Biology*, **2011**, 192, 647-61	7.3	94
72	Tau Biology and Tau-Directed Therapies for Alzheimer's Disease. *Drugs*, **2016**, 76, 301-13	12.1	91
71	Phosphorylation-mimicking glutamate clusters in the proline-rich region are sufficient to simulate the functional deficiencies of hyperphosphorylated tau protein. *Biochemical Journal*, **2001**, 357, 759-767	3.8	91

70	A Caenorhabditis elegans model of tau hyperphosphorylation: induction of developmental defects by transgenic overexpression of Alzheimer's disease-like modified tau. *Neurobiology of Aging*, **2009**, 30, 22-33	5.6	87
69	The Rab GTPase Ypt7 is linked to retromer-mediated receptor recycling and fusion at the yeast late endosome. *Journal of Cell Science*, **2010**, 123, 4085-94	5.3	83
68	Stabilization of hyperdynamic microtubules is neuroprotective in amyotrophic lateral sclerosis. *Journal of Biological Chemistry*, **2007**, 282, 23465-72	5.4	79
67	Insulin-like growth factor 1 inhibits extracellular signal-regulated kinase to promote neuronal survival via the phosphatidylinositol 3-kinase/protein kinase A/c-Raf pathway. *Journal of Neuroscience*, **2005**, 25, 2838-52	6.6	79
66	Thin, stubby or mushroom: spine pathology in Alzheimer's disease. *Current Alzheimer Research*, **2009**, 6, 261-8	3	76
65	Tau aggregation and progressive neuronal degeneration in the absence of changes in spine density and morphology after targeted expression of Alzheimer's disease-relevant tau constructs in organotypic hippocampal slices. *Journal of Neuroscience*, **2006**, 26, 6103-14	6.6	74
64	Phosphorylation-mimicking glutamate clusters in the proline-rich region are sufficient to simulate the functional deficiencies of hyperphosphorylated tau protein. *Biochemical Journal*, **2001**, 357, 759-67	3.8	70
63	Regulation between O-GlcNAcylation and phosphorylation of neurofilament-M and their dysregulation in Alzheimer disease. *FASEB Journal*, **2008**, 22, 138-45	0.9	69
62	Single-molecule imaging reveals dynamic biphasic partition of RNA-binding proteins in stress granules. *Journal of Cell Biology*, **2018**, 217, 1303-1318	7.3	67
61	O-glycosylation of the tail domain of neurofilament protein M in human neurons and in spinal cord tissue of a rat model of amyotrophic lateral sclerosis (ALS). *Journal of Biological Chemistry*, **2005**, 280, 31648-58	5.4	62
60	The balance between tau protein's microtubule growth and nucleation activities: implications for the formation of axonal microtubules. *Journal of Neurochemistry*, **1993**, 61, 997-1005	6	60
59	Changes in microtubule turnover accompany synaptic plasticity and memory formation in response to contextual fear conditioning in mice. *Neuroscience*, **2010**, 168, 167-78	3.9	59
58	Human high temperature requirement serine protease A1 (HTRA1) degrades tau protein aggregates. *Journal of Biological Chemistry*, **2012**, 287, 20931-41	5.4	56
57	Microtubule Dynamics in Neuronal Development, Plasticity, and Neurodegeneration. *International Review of Cell and Molecular Biology*, **2016**, 321, 89-169	6	55
56	Microtubule binding and trapping at the tip of neurites regulate tau motion in living neurons. *Traffic*, **2009**, 10, 1655-68	5.7	55
55	Cytoskeletal mechanisms of neuronal degeneration. *Cell and Tissue Research*, **2001**, 305, 255-65	4.2	49
54	Inverse and distinct modulation of tau-dependent neurodegeneration by presenilin 1 and amyloid-beta in cultured cortical neurons: evidence that tau phosphorylation is the limiting factor in amyloid-beta-induced cell death. *Journal of Neurochemistry*, **2007**, 101, 1303-15	6	45
53	Cerebrospinal fluid-based kinetic biomarkers of axonal transport in monitoring neurodegeneration. *Journal of Clinical Investigation*, **2012**, 122, 3159-69	15.9	44

52	Microtubule dynamics and the neurodegenerative triad of Alzheimer's disease: The hidden connection. *Journal of Neurochemistry*, **2017**, 143, 409-417	6	38
51	Functional interactions of tau and their relevance for Alzheimer's disease. *Current Alzheimer Research*, **2004**, 1, 255-69	3	38
50	The transition of microglia to a ramified phenotype is associated with the formation of stable acetylated and detyrosinated microtubules. *Glia*, **1996**, 18, 129-40	9	38
49	Orientation, assembly, and stability of microtubule bundles induced by a fragment of tau protein. *Cytoskeleton*, **1994**, 28, 143-54		37
48	Presence of a carboxy-terminal pseudorepeat and disease-like pseudohyperphosphorylation critically influence tau's interaction with microtubules in axon-like processes. *Molecular Biology of the Cell*, **2016**, 27, 3537-3549	3.5	35
47	Annexins A2 and A6 interact with the extreme N terminus of tau and thereby contribute to tau's axonal localization. *Journal of Biological Chemistry*, **2018**, 293, 8065-8076	5.4	33
46	A-mediated spine changes in the hippocampus are microtubule-dependent and can be reversed by a subnanomolar concentration of the microtubule-stabilizing agent epothilone D. *Neuropharmacology*, **2016**, 105, 84-95	5.5	33
45	The tau proteins in neuronal growth and development. *Frontiers in Bioscience - Landmark*, **1996**, 1, d118-30	2.8	33
44	Interplay between phosphorylation and palmitoylation mediates plasma membrane targeting and sorting of GAP43. *Molecular Biology of the Cell*, **2014**, 25, 3284-99	3.5	28
43	Region-specific dendritic simplification induced by A-mediated by tau via dysregulation of microtubule dynamics: a mechanistic distinct event from other neurodegenerative processes. *Molecular Neurodegeneration*, **2015**, 10, 60	19	27
42	Cytoskeletal mechanisms of axon outgrowth and pathfinding. *Cell and Tissue Research*, **1998**, 292, 181-9	4.2	27
41	Microtubule-bundling studies revisited: is there a role for MAPs?. *Trends in Cell Biology*, **1992**, 2, 286-9	18.3	27
40	Signaling pathways and posttranslational modifications of tau in Alzheimer's disease: the humanization of yeast cells. *Microbial Cell*, **2016**, 3, 135-146	3.9	26
39	Differential and regulated binding of cAMP-dependent protein kinase and protein kinase C isoenzymes to gravin in human model neurons: Evidence that gravin provides a dynamic platform for the localization for kinases during neuronal development. *Journal of Biological Chemistry*, **2003**,	5.4	25
38	The Evolution of Tau Phosphorylation and Interactions. *Frontiers in Aging Neuroscience*, **2019**, 11, 256	5.3	24
37	RNA protein granules modulate tau isoform expression and induce neuronal sprouting. *Journal of Biological Chemistry*, **2014**, 289, 16814-25	5.4	24
36	Altered phosphorylation but no neurodegeneration in a mouse model of tau hyperphosphorylation. *Neurobiology of Aging*, **2011**, 32, 991-1006	5.6	24
35	Systemic and network functions of the microtubule-associated protein tau: Implications for tau-based therapies. *Molecular and Cellular Neurosciences*, **2017**, 84, 132-141	4.8	21

34	Neurotrophins differentially regulate the survival and morphological complexity of human CNS model neurons. *Journal of Neurochemistry*, **1999**, 73, 139-46	6	21
33	DMSO modulates CNS function in a preclinical Alzheimer's disease model. *Neuropharmacology*, **2017**, 113, 434-444	5.5	18
32	A refined reaction-diffusion model of tau-microtubule dynamics and its application in FDAP analysis. *Biophysical Journal*, **2014**, 107, 2567-78	2.9	18
31	Identification of MINUS, a small polypeptide that functions as a microtubule nucleation suppressor. *EMBO Journal*, **1999**, 18, 565-77	13	18
30	Differential interactions of MAP2, tau and MAP5 during axogenesis in culture. *NeuroReport*, **1998**, 9, 1035-40	1.7	17
29	Contact with astroglial membranes induces axonal and dendritic growth of human CNS model neurons and affects the distribution of the growth-associated proteins MAP1B and GAP43. *Journal of Neuroscience Research*, **2002**, 67, 471-83	4.4	15
28	Triple mammalian/yeast/bacterial shuttle vectors for single and combined Lentivirus- and Sindbis virus-mediated infections of neurons. *Molecular Genetics and Genomics*, **2012**, 287, 313-24	3.1	14
27	Much More Than a Cytoskeletal Protein: Physiological and Pathological Functions of the Non-microtubule Binding Region of Tau. *Frontiers in Neurology*, **2020**, 11, 590059	4.1	12
26	Microcompartments in the Drosophila heart and the mammalian brain: general features and common principles. *Biological Chemistry*, **2013**, 394, 217-30	4.5	11
25	High-resolution imaging and evaluation of spines in organotypic hippocampal slice cultures. *Methods in Molecular Biology*, **2012**, 846, 277-93	1.4	11
24	Cognitive impairment and autistic-like behaviour in SAPAP4-deficient mice. *Translational Psychiatry*, **2019**, 9, 7	8.6	10
23	Early Effects of A□Oligomers on Dendritic Spine Dynamics and Arborization in Hippocampal Neurons. *Frontiers in Synaptic Neuroscience*, **2020**, 12, 2	3.5	10
22	Monitoring cytoskeletal dynamics in living neurons using fluorescence photoactivation. *Methods in Enzymology*, **2012**, 505, 3-21	1.7	10
21	Mechanisms of neurodegenerative diseases: insights from live cell imaging. *Journal of Neuroscience Research*, **2008**, 86, 504-11	4.4	9
20	Ribosomal localization of the mRNA in the 30S initiation complex as revealed by UV crosslinking. *FEBS Letters*, **1992**, 311, 199-202	3.8	9
19	Herpes simplex virus-mediated expression of the axonal protein tau in human model neurons (NT2-N cells). *Microscopy Research and Technique*, **2000**, 48, 85-96	2.8	8
18	The microtubule skeleton and the evolution of neuronal complexity in vertebrates. *Biological Chemistry*, **2019**, 400, 1163-1179	4.5	7
17	Alkylene-bridged viologen dendrimers: versatile cell delivery tools with biosensing properties. *Organic and Biomolecular Chemistry*, **2014**, 12, 9583-91	3.9	6

16	Live cell imaging of cytoskeletal dynamics in neurons using fluorescence photoactivation. *Biological Chemistry*, **2010**, 391, 639-43	4.5	6
15	Identification of Nucleoside Analogs as Inducers of Neuronal Differentiation in a Human Reporter Cell Line and Adult Stem Cells. *Chemical Biology and Drug Design*, **2015**, 86, 129-43	2.9	5
14	Live-cell imaging in the study of neurodegeneration. *International Review of Cell and Molecular Biology*, **2009**, 276, 49-103	6	5
13	Ribosome-mRNA contact sites at different stages of translation initiation as revealed by cross-linking of model mRNAs. *Biochimie*, **1991**, 73, 1543-9	4.6	4
12	Reconstruction and Morphometric Analysis of Hippocampal Neurons from Mice Expressing Fluorescent Proteins. *Neuromethods*, **2014**, 251-262	0.4	4
11	Chronic Presence of Oligomeric A Differentially Modulates Spine Parameters in the Hippocampus and Cortex of Mice With Low APP Transgene Expression. *Frontiers in Synaptic Neuroscience*, **2020**, 12, 16	3.5	3
10	Machine Learning to Evaluate Neuron Density in Brain Sections. *Neuromethods*, **2014**, 263-291	0.4	2
9	Phosphorylation of native and truncated isoforms of protein tau by the double-stranded DNA-dependent protein kinase (DNA-PK) shows that the primary phosphorylation sites are localized between amino acid residues 212-231 of the longest tau. *IUBMB Life*, **1996**, 40, 21-31	4.7	1
8	Nanocores and Liquid Droplets: Single-Molecule Microscopy of Neuronal Stress Granule Components. *Neuromethods*, **2020**, 39-57	0.4	1
7	Evaluation and Elucidation of DNA-Containing Viologen Dendrimer Complex Formation. *European Journal of Organic Chemistry*, **2016**, 2016, 1897-1907	3.2	1
6	Monitoring and Quantification of the Dynamics of Stress Granule Components in Living Cells by Fluorescence Decay After Photoactivation.. *Methods in Molecular Biology*, **2022**, 2428, 243-259	1.4	1
5	Cytoskeletal mechanisms of neuronal morphogenesis. *Zoology*, **2001**, 104, 221-7	1.7	0
4	Purification of MINUS: A negative regulator of microtubule nucleation in a variety of organisms. *International Journal of Biological Macromolecules*, **2006**, 39, 15-22	7.9	
3	Funktionen des Zytoskeletts bei der Entwicklung von Nervenzellen. *E-Neuroforum*, **2001**, 7, 47-56		
2	Targeting microtubules in axonal re- and degeneration (Commentary on Li et al. ()). *European Journal of Neuroscience*, **2017**, 46, 1647-1649	3.5	
1	Shearlet Analysis of Confocal Laser-Scanning Microscopy Images to Extract Morphological Features of Neurons. *Neuromethods*, **2014**, 293-303	0.4	