Gerhard Multhaup

List of Publications by Citations

66 papers	7,748 citations	33 h-index	69 g-index
69 ext. papers	8,279 ext. citations	6.8 avg, IF	4.9 L-index

#	Paper	IF	Citations
66	The precursor of Alzheimer's disease amyloid A4 protein resembles a cell-surface receptor. *Nature*, **1987**, 325, 733-6	50.4	4170
65	Presenilin-dependent gamma-secretase processing of beta-amyloid precursor protein at a site corresponding to the S3 cleavage of Notch. *EMBO Reports*, **2001**, 2, 835-41	6.5	424
64	GxxxG motifs within the amyloid precursor protein transmembrane sequence are critical for the etiology of Abeta42. *EMBO Journal*, **2007**, 26, 1702-12	13	232
63	The beta A4 amyloid precursor protein binding to copper. *FEBS Letters*, **1994**, 349, 109-16	3.8	206
62	Crystal structure of the N-terminal, growth factor-like domain of Alzheimer amyloid precursor protein. *Nature Structural Biology*, **1999**, 6, 327-31		199
61	The cellular prion protein mediates neurotoxic signalling of β-sheet-rich conformers independent of prion replication. *EMBO Journal*, **2011**, 30, 2057-70	13	181
60	Copper inhibits β-amyloid production and stimulates the non-amyloidogenic pathway of amyloid-precursor-protein secretion. *Biochemical Journal*, **1999**, 344, 461-467	3.8	144
59	Copper-binding amyloid precursor protein undergoes a site-specific fragmentation in the reduction of hydrogen peroxide. *Biochemistry*, **1998**, 37, 7224-30	3.2	120
58	Clioquinol mediates copper uptake and counteracts copper efflux activities of the amyloid precursor protein of Alzheimer's disease. *Journal of Biological Chemistry*, **2004**, 279, 51958-64	5.4	108
57	Intraneuronal APP/A beta trafficking and plaque formation in beta-amyloid precursor protein and presenilin-1 transgenic mice. *Brain Pathology*, **2002**, 12, 275-86	6	104
56	Mutations in the transmembrane domain of APP altering gamma-secretase specificity. *Biochemistry* , **1997**, 36, 15396-403	3.2	97
55	Regulation and expression of the Alzheimer's beta/A4 amyloid protein precursor in health, disease, and Down's syndrome. *Annals of the New York Academy of Sciences*, **1993**, 695, 91-102	6.5	93
54	Dimerization of beta-site beta-amyloid precursor protein-cleaving enzyme. *Journal of Biological Chemistry*, **2004**, 279, 53205-12	5.4	90
53	Role of amyloid-beta glycine 33 in oligomerization, toxicity, and neuronal plasticity. *Journal of Neuroscience*, **2009**, 29, 7582-90	6.6	87
52	Subcellular localization and dimerization of APLP1 are strikingly different from APP and APLP2. *Journal of Cell Science*, **2009**, 122, 368-77	5.3	78
51	Metal binding dictates conformation and function of the amyloid precursor protein (APP) E2 domain. *Journal of Molecular Biology*, **2012**, 416, 438-52	6.5	77
50	Interaction between the zinc (II) and the heparin binding site of the Alzheimer's disease beta A4 amyloid precursor protein (APP). *FEBS Letters*, **1994**, 355, 151-4	3.8	75

49	Intake of copper has no effect on cognition in patients with mild Alzheimer's disease: a pilot phase 2 clinical trial. *Journal of Neural Transmission*, **2008**, 115, 1181-7	4.3	74
48	Characterization of intermediate steps in amyloid beta (A) production under near-native conditions. *Journal of Biological Chemistry*, **2014**, 289, 1540-50	5.4	72
47	Evidence for Heterodimerization and Functional Interaction of the Angiotensin Type 2 Receptor and the Receptor MAS. *Hypertension*, **2017**, 69, 1128-1135	8.5	69
46	Human BACE forms dimers and colocalizes with APP. *Journal of Biological Chemistry*, **2004**, 279, 39710-7	5.4	62
45	Novel APP/A mutation K16N produces highly toxic heteromeric A oligomers. *EMBO Molecular Medicine*, **2012**, 4, 647-59	12	58
44	Amyloid Precursor Protein (APP) Metabolites APP Intracellular Fragment (AICD), A42, and Tau in Nuclear Roles. *Journal of Biological Chemistry*, **2015**, 290, 23515-22	5.4	55
43	Aberrant amyloid precursor protein (APP) processing in hereditary forms of Alzheimer disease caused by APP familial Alzheimer disease mutations can be rescued by mutations in the APP GxxxG motif. *Journal of Biological Chemistry*, **2010**, 285, 21636-43	5.4	53
42	Identification of a beta-secretase activity, which truncates amyloid beta-peptide after its presenilin-dependent generation. *Journal of Biological Chemistry*, **2003**, 278, 5531-8	5.4	51
41	Nuclear translocation uncovers the amyloid peptide A42 as a regulator of gene transcription. *Journal of Biological Chemistry*, **2014**, 289, 20182-91	5.4	50
40	Human amyloid precursor-like protein 1--cDNA cloning, ectopic expression in COS-7 cells and identification of soluble forms in the cerebrospinal fluid. *FEBS Journal*, **1997**, 250, 354-63		49
39	Proteolytic fragments of Alzheimer's disease-associated presenilin 1 are present in synaptic organelles and growth cone membranes of rat brain. *Journal of Neurochemistry*, **1999**, 72, 1564-73	6	47
38	Human brain beta A4 amyloid protein precursor of Alzheimer's disease: purification and partial characterization. *Journal of Neurochemistry*, **1992**, 59, 1490-8	6	45
37	A novel substrate for analyzing Alzheimer's disease gamma-secretase. *FEBS Letters*, **1999**, 453, 288-92	3.8	41
36	The amyloid precursor protein and its homologues: structural and functional aspects of native and pathogenic oligomerization. *European Journal of Cell Biology*, **2012**, 91, 234-9	6.1	38
35	Sulindac Sulfide Induces the Formation of Large Oligomeric Aggregates of the Alzheimer's Disease Amyloid-Peptide Which Exhibit Reduced Neurotoxicity. *Biochemistry*, **2016**, 55, 1839-49	3.2	37
34	Alzheimer amyloid peptide a42 regulates gene expression of transcription and growth factors. *Journal of Alzheimer's Disease*, **2015**, 44, 613-24	4.3	35
33	Amyloid precursor-like protein 1 accumulates in neuritic plaques in Alzheimer's disease. *Acta Neuropathologica*, **1997**, 94, 519-24	14.3	31
32	APP dimer formation is initiated in the endoplasmic reticulum and differs between APP isoforms. *Cellular and Molecular Life Sciences*, **2012**, 69, 1353-75	10.3	30

31	Inhibition of platelet activation by the Alzheimer's disease amyloid precursor protein. *British Journal of Haematology*, **1998**, 103, 402-15	4.5	26
30	Possible mechanisms of APP-mediated oxidative stress in Alzheimer's disease. *Free Radical Biology and Medicine*, **2002**, 33, 45-51	7.8	25
29	Structural Mechanism of the Interaction of Alzheimer Disease Aβ Fibrils with the Non-steroidal Anti-inflammatory Drug (NSAID) Sulindac Sulfide. *Journal of Biological Chemistry*, **2015**, 290, 28737-45	5.4	21
28	Direct evidence of amyloid precursor-like protein 1 interactions in cell-cell adhesion platforms investigated via fluorescence fluctuation spectroscopy. *Molecular Biology of the Cell*, **2017**, 28, 3609-3620	3.5	21
27	Aβ42-oligomer Interacting Peptide (AIP) neutralizes toxic amyloid-β42 species and protects synaptic structure and function. *Scientific Reports*, **2015**, 5, 15410	4.9	21
26	Distinct age and differentiation-state dependent metabolic profiles of oligodendrocytes under optimal and stress conditions. *PLoS ONE*, **2017**, 12, e0182372	3.7	21
25	Understanding the Interaction of Polyelectrolyte Architectures with Proteins and Biosystems. *Angewandte Chemie - International Edition*, **2021**, 60, 3882-3904	16.4	21
24	Aβ34 is a BACE1-derived degradation intermediate associated with amyloid clearance and Alzheimer's disease progression. *Nature Communications*, **2019**, 10, 2240	17.4	20
23	Dendritic Polyglycerol Sulfates in the Prevention of Synaptic Loss and Mechanism of Action on Glia. *ACS Chemical Neuroscience*, **2018**, 9, 260-271	5.7	19
22	Novel zinc-binding site in the E2 domain regulates amyloid precursor-like protein 1 (APLP1) oligomerization. *Journal of Biological Chemistry*, **2014**, 289, 19019-30	5.4	19
21	APLP1 is endoproteolytically cleaved by β-secretase without previous ectodomain shedding. *Scientific Reports*, **2018**, 8, 1916	4.9	16
20	Amyloid precursor-like protein 1 (APLP1) exhibits stronger zinc-dependent neuronal adhesion than amyloid precursor protein and APLP2. *Journal of Neurochemistry*, **2016**, 137, 266-76	6	16
19	Impact of amyloid precursor protein hydrophilic transmembrane residues on amyloid-beta generation. *Biochemistry*, **2015**, 54, 2777-84	3.2	13
18	Polyglycerol based coatings to reduce non-specific protein adsorption in sample vials and on SPR sensors. *Analytica Chimica Acta*, **2015**, 867, 47-55	6.6	13
17	Full-length cellular β-secretase has a trimeric subunit stoichiometry, and its sulfur-rich transmembrane interaction site modulates cytosolic copper compartmentalization. *Journal of Biological Chemistry*, **2017**, 292, 13258-13270	5.4	13
16	Model peptides uncover the role of the β-secretase transmembrane sequence in metal ion mediated oligomerization. *Journal of the American Chemical Society*, **2013**, 135, 19354-61	16.4	12
15	Dimerization of the cellular prion protein inhibits propagation of scrapie prions. *Journal of Biological Chemistry*, **2018**, 293, 8020-8031	5.4	9
14	Copper transport mediated by nanocarrier systems in a blood-brain barrier in vitro model. *Biomacromolecules*, **2014**, 15, 1910-9	6.9	9

13	The amyloid-β degradation intermediate Aβ34 is pericyte-associated and reduced in brain capillaries of patients with Alzheimer's disease. *Acta Neuropathologica Communications*, **2019**, 7, 194	7.3	9
12	Interaction of the amyloid precursor protein-like protein 1 (APLP1) E2 domain with heparan sulfate involves two distinct binding modes. *Acta Crystallographica Section D: Biological Crystallography*, **2015**, 71, 494-504		8
11	Amyloid Precursor Protein Dimerisation Reduces Neurite Outgrowth. *Molecular Neurobiology*, **2019** , 56, 13-28	6.2	8
10	Neurodegenerative Disease-Related Proteins within the Epidermal Layer of the Human Skin. *Journal of Alzheimer's Disease*, **2019**, 69, 463-478	4.3	7
9	Hyperbranched Polyglycerol Derivatives as Prospective Copper Nanotransporter Candidates. *Molecules*, **2018**, 23,	4.8	6
8	Label-free distribution of anti-amyloid D-AIP in Drosophila melanogaster: prevention of Aβ42-induced toxicity without side effects in transgenic flies. *Journal of Neurochemistry*, **2019**, 150, 74-87	6	5
7	Wechselwirkung von Polyelektrolyt-Architekturen mit Proteinen und Biosystemen. *Angewandte Chemie*, **2021**, 133, 3926-3950	3.6	3
6	The Amyloid-β oligomer interacting peptide D-AIP possesses favorable biostability, pharmacokinetics, and brain region distribution.. *Journal of Biological Chemistry*, **2021**, 101483	5.4	1
5	Alzheimer's Disease: Genesis of Amyloid. *Novartis Foundation Symposium*,119-131		1
4	Plasma Amyloid-Beta Levels in a Pre-Symptomatic Dutch-Type Hereditary Cerebral Amyloid Angiopathy Pedigree: A Cross-Sectional and Longitudinal Investigation. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	1
3	Presymptomatic Dutch-Type Hereditary Cerebral Amyloid Angiopathy-Related Blood Metabolite Alterations. *Journal of Alzheimer's Disease*, **2021**, 79, 895-903	4.3	1
2	Biophysical characterization as a tool to predict amyloidogenic and toxic properties of amyloid-β42 peptides.. *FEBS Letters*, **2022**,	3.8	0
1	Crystal Structure of the N-terminal Heparin-Binding Domain of Alzheimer's Amyloid Precursor Protein. *Biochemical Society Transactions*, **2000**, 28, A447-A447	5.1	