Dominic M Walsh

List of Publications by Year in Descending Order

77 papers	18,648 citations	46 h-index	79 g-index
79 ext. papers	20,534 ext. citations	10.1 avg, IF	6.46 L-index

#	Paper	IF	Citations
77	Laboratory evolution of a sortase enzyme that modifies amyloid-β protein. *Nature Chemical Biology* , **2021**, 17, 317-325	11.7	10
76	Dynamics of plasma biomarkers in Down syndrome: the relative levels of Aβ42 decrease with age, whereas NT1 tau and NfL increase. *Alzheimer's Research and Therapy*, **2020**, 12, 27	9	12
75	Amyloid β protein and beyond: the path forward in Alzheimer's disease. *Current Opinion in Neurobiology*, **2020**, 61, 116-124	7.6	56
74	Transcriptomic correlates of neurite degeneration due to human brain-derived Aβ and protection by clinical anti-Aβ antibodies. *Alzheimer's and Dementia*, **2020**, 16, e043057	1.2	
73	PrP is a central player in toxicity mediated by soluble aggregates of neurodegeneration-causing proteins. *Acta Neuropathologica*, **2020**, 139, 503-526	14.3	55
72	Target engagement in an alzheimer trial: Crenezumab lowers amyloid β oligomers in cerebrospinal fluid. *Annals of Neurology*, **2019**, 86, 215-224	9.4	41
71	Identification of neurotoxic cross-linked amyloid-β dimers in the Alzheimer's brain. *Brain*, **2019**, 142, 1441-1457	11.2	40
70	Soluble tau aggregates inhibit synaptic long-term depression and amyloid β-facilitated LTD in vivo. *Neurobiology of Disease*, **2019**, 127, 582-590	7.5	12
69	A vicious cycle of β amyloid-dependent neuronal hyperactivation. *Science*, **2019**, 365, 559-565	33.3	206
68	miR-212 and miR-132 Are Downregulated in Neurally Derived Plasma Exosomes of Alzheimer's Patients. *Frontiers in Neuroscience*, **2019**, 13, 1208	5.1	61
67	PrP-grafted antibodies bind certain amyloid β protein aggregates, but do not prevent toxicity. *Brain Research*, **2019**, 1710, 125-135	3.7	13
66	Learnings about the complexity of extracellular tau aid development of a blood-based screen for Alzheimer's disease. *Alzheimer's and Dementia*, **2019**, 15, 487-496	1.2	60
65	Diffusible, highly bioactive oligomers represent a critical minority of soluble Aβ in Alzheimer's disease brain. *Acta Neuropathologica*, **2018**, 136, 19-40	14.3	47
64	Detection of Aggregation-Competent Tau in Neuron-Derived Extracellular Vesicles. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	86
63	An in vitro paradigm to assess potential anti-Aβ antibodies for Alzheimer's disease. *Nature Communications*, **2018**, 9, 2676	17.4	26
62	P1-106: A HEAD-TO-HEAD COMPARISON OF LEAD CLINICAL ANTI-Aβ ANTIBODIES **2018**, 14, P312-P312		
61	P1-301: CERTAIN PLASMA N-TERMINAL TAU FRAGMENTS ARE ELEVATED IN AD AND AD-MCI COMPARED TO CONTROLS **2018**, 14, P405-P405		

60	DT-02-03: TARGET ENGAGEMENT IN AN AD TRIAL: CRENEZUMAB LOWERS A□OLIGOMER LEVELS IN CSF **2018**, 14, P1669-P1670		3
59	Cellular Prion Protein Mediates the Disruption of Hippocampal Synaptic Plasticity by Soluble Tau. *Journal of Neuroscience*, **2018**, 38, 10595-10606	6.6	45
58	Extracellular Forms of A□and Tau from iPSC Models of Alzheimer□s Disease Disrupt Synaptic Plasticity. *Cell Reports*, **2018**, 23, 1932-1938	10.6	43
57	Developmental Regulation of Mitochondrial Apoptosis by c-Myc Governs Age- and Tissue-Specific Sensitivity to Cancer Therapeutics. *Cancer Cell*, **2017**, 31, 142-156	24.3	123
56	Soluble A□aggregates can inhibit prion propagation. *Open Biology*, **2017**, 7,	7	9
55	Human Brain-Derived A□Oligomers Bind to Synapses and Disrupt Synaptic Activity in a Manner That Requires APP. *Journal of Neuroscience*, **2017**, 37, 11947-11966	6.6	72
54	Large Soluble Oligomers of Amyloid □Protein from Alzheimer Brain Are Far Less Neuroactive Than the Smaller Oligomers to Which They Dissociate. *Journal of Neuroscience*, **2017**, 37, 152-163	6.6	185
53	Peripheral Interventions Enhancing Brain Glutamate Homeostasis Relieve Amyloid □and TNF□ Mediated Synaptic Plasticity Disruption in the Rat Hippocampus. *Cerebral Cortex*, **2017**, 27, 3724-3735	5.1	13
52	Non-Fibrillar Oligomeric Amyloid-□within Synapses. *Journal of Alzheimer□s Disease*, **2016**, 53, 787-800	4.3	43
51	The Aggregation Paths and Products of A□42 Dimers Are Distinct from Those of the A□42 Monomer. *Biochemistry*, **2016**, 55, 6150-6161	3.2	15
50	Soluble A□oligomers impair hippocampal LTP by disrupting glutamatergic/GABAergic balance. *Neurobiology of Disease*, **2016**, 85, 111-121	7.5	92
49	A critical appraisal of the pathogenic protein spread hypothesis of neurodegeneration. *Nature Reviews Neuroscience*, **2016**, 17, 251-60	13.5	198
48	Tau immunization: a cautionary tale?. *Neurobiology of Aging*, **2015**, 36, 1316-32	5.6	25
47	The aqueous phase of Alzheimer□s disease brain contains assemblies built from ~4 and ~7 kDa A□ species. *Alzheimer□s and Dementia*, **2015**, 11, 1286-305	1.2	41
46	A highly sensitive novel immunoassay specifically detects low levels of soluble A□oligomers in human cerebrospinal fluid. *Alzheimer□s Research and Therapy*, **2015**, 7, 14	9	63
45	Autoregulated paracellular clearance of amyloid-□across the blood-brain barrier. *Science Advances*, **2015**, 1, e1500472	14.3	73
44	N-Terminal Extensions Retard A□42 Fibril Formation but Allow Cross-Seeding and Coaggregation with A□42. *Journal of the American Chemical Society*, **2015**, 137, 14673-85	16.4	51
43	C-Terminally Truncated Forms of Tau, But Not Full-Length Tau or Its C-Terminal Fragments, Are Released from Neurons Independently of Cell Death. *Journal of Neuroscience*, **2015**, 35, 10851-65	6.6	106

42	A human monoclonal IgG that binds aβ assemblies and diverse amyloids exhibits anti-amyloid activities in vitro and in vivo. *Journal of Neuroscience*, **2015**, 35, 6265-76	6.6	18
41	Anti-Aβ antibodies incapable of reducing cerebral Aβ oligomers fail to attenuate spatial reference memory deficits in J20 mice. *Neurobiology of Disease*, **2015**, 82, 372-384	7.5	31
40	F5-02-01: Getting a handle on soluble aβ in Alzheimer's disease brains **2015**, 11, P304-P305		
39	IgG Conformers Binding to Amyloidogenic Aggregates. *PLoS ONE*, **2015**, 10, e0137344	3.7	3
38	Aβ dimers differ from monomers in structural propensity, aggregation paths and population of synaptotoxic assemblies. *Biochemical Journal*, **2014**, 461, 413-26	3.8	53
37	Secreted amyloid β proteins in a cell culture model include N-terminally extended peptides that impair synaptic plasticity. *Biochemistry*, **2014**, 53, 3908-21	3.2	71
36	Neurotransmitter receptor and time dependence of the synaptic plasticity disrupting actions of Alzheimer's disease Aβ in vivo. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2014**, 369, 20130147	5.8	17
35	Simultaneous measurement of a range of particle sizes during Aβ1-42 fibrillogenesis quantified using fluorescence correlation spectroscopy. *Biochemical and Biophysical Research Communications*, **2014**, 448, 195-9	3.4	18
34	APP homodimers transduce an amyloid-β mediated increase in release probability at excitatory synapses. *Cell Reports*, **2014**, 7, 1560-1576	10.6	82
33	Peripheral administration of a humanized anti-PrP antibody blocks Alzheimer's disease Aβ synaptotoxicity. *Journal of Neuroscience*, **2014**, 34, 6140-5	6.6	57
32	mGlu5 receptors and cellular prion protein mediate amyloid-β facilitated synaptic long-term depression in vivo. *Nature Communications*, **2014**, 5, 3374	17.4	122
31	The ELISA-measured increase in cerebrospinal fluid tau that discriminates Alzheimer's disease from other neurodegenerative disorders is not attributable to differential recognition of tau assembly forms. *Journal of Alzheimer's Disease*, **2013**, 33, 923-8	4.3	9
30	Alzheimer brain-derived amyloid β protein impairs synaptic remodeling and memory consolidation. *Neurobiology of Aging*, **2013**, 34, 1315-27	5.6	47
29	Amyloid-β nanotubes are associated with prion protein-dependent synaptotoxicity. *Nature Communications*, **2013**, 4, 2416	17.4	97
28	The levels of water-soluble and triton-soluble Aβ are increased in Alzheimer's disease brain. *Brain Research*, **2012**, 1450, 138-47	3.7	43
27	Alzheimer's disease and the amyloid β protein. *Progress in Molecular Biology and Translational Science*, **2012**, 107, 101-24	4	96
26	Isolation of low-n amyloid β protein oligomers from cultured cells, CSF, and brain. *Methods in Molecular Biology*, **2011**, 670, 33-44	1.4	44
25	Soluble amyloid beta-protein dimers isolated from Alzheimer cortex directly induce Tau hyperphosphorylation and neuritic degeneration. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 5819-24	11.5	641

24	Interaction between prion protein and toxic amyloid assemblies can be therapeutically targeted at multiple sites. *Nature Communications*, **2011**, 2, 336	17.4	228
23	Alzheimer's disease brain-derived amyloid- mediated inhibition of LTP in vivo is prevented by immunotargeting cellular prion protein. *Journal of Neuroscience*, **2011**, 31, 7259-63	6.6	193
22	beta-Secretase cleavage is not required for generation of the intracellular C-terminal domain of the amyloid precursor family of proteins. *FEBS Journal*, **2010**, 277, 1503-18	5.7	21
21	Amyloid beta-protein dimers rapidly form stable synaptotoxic protofibrils. *Journal of Neuroscience*, **2010**, 30, 14411-9	6.6	199
20	The presence of sodium dodecyl sulphate-stable Abeta dimers is strongly associated with Alzheimer-type dementia. *Brain*, **2010**, 133, 1328-41	11.2	207
19	Alzheimer's disease: synaptic dysfunction and Abeta. *Molecular Neurodegeneration*, **2009**, 4, 48	19	318
18	A facile method for expression and purification of the Alzheimer's disease-associated amyloid beta-peptide. *FEBS Journal*, **2009**, 276, 1266-81	5.7	197
17	Soluble oligomers of amyloid Beta protein facilitate hippocampal long-term depression by disrupting neuronal glutamate uptake. *Neuron*, **2009**, 62, 788-801	13.9	698
16	Amyloid-beta protein dimers isolated directly from Alzheimer's brains impair synaptic plasticity and memory. *Nature Medicine*, **2008**, 14, 837-42	50.5	2779
15	Aggregation and catabolism of disease-associated intra-Abeta mutations: reduced proteolysis of AbetaA21G by neprilysin. *Neurobiology of Disease*, **2008**, 31, 442-50	7.5	76
14	Amyloid beta protein dimer-containing human CSF disrupts synaptic plasticity: prevention by systemic passive immunization. *Journal of Neuroscience*, **2008**, 28, 4231-7	6.6	256
13	Intracerebroventricular Administration of Amyloid protein Oligomers Selectively Increases Dorsal Hippocampal Dialysate Glutamate Levels in the Awake Rat. *Sensors*, **2008**, 8, 7428-7437	3.8	19
12	Natural oligomers of the Alzheimer amyloid-beta protein induce reversible synapse loss by modulating an NMDA-type glutamate receptor-dependent signaling pathway. *Journal of Neuroscience*, **2007**, 27, 2866-75	6.6	1232
11	Certain inhibitors of synthetic amyloid beta-peptide (Abeta) fibrillogenesis block oligomerization of natural Abeta and thereby rescue long-term potentiation. *Journal of Neuroscience*, **2005**, 25, 2455-62	6.6	262
10	Amyloid beta protein immunotherapy neutralizes Abeta oligomers that disrupt synaptic plasticity in vivo. *Nature Medicine*, **2005**, 11, 556-61	50.5	443
9	Natural oligomers of the amyloid-beta protein specifically disrupt cognitive function. *Nature Neuroscience*, **2005**, 8, 79-84	25.5	1436
8	Deciphering the molecular basis of memory failure in Alzheimer's disease. *Neuron*, **2004**, 44, 181-93	13.9	1004
7	gamma-Secretase cleavage and binding to FE65 regulate the nuclear translocation of the intracellular C-terminal domain (ICD) of the APP family of proteins. *Biochemistry*, **2003**, 42, 6664-73	3.2	91

6	The Many Faces of Aβ: Structures and Activity. *Current Medicinal Chemistry Immunology, Endocrine & Metabolic Agents*, **2003**, 3, 277-291		18
5	Naturally secreted oligomers of amyloid beta protein potently inhibit hippocampal long-term potentiation in vivo. *Nature*, **2002**, 416, 535-9	50.4	3560
4	An improved method of preparing the amyloid beta-protein for fibrillogenesis and neurotoxicity experiments. *Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis*, **2000**, 7, 166-78	2.7	211
3	Protofibrillar intermediates of amyloid beta-protein induce acute electrophysiological changes and progressive neurotoxicity in cortical neurons. *Journal of Neuroscience*, **1999**, 19, 8876-84	6.6	873
2	Amyloid beta-protein fibrillogenesis. Detection of a protofibrillar intermediate. *Journal of Biological Chemistry*, **1997**, 272, 22364-72	5.4	859
1	Aggregation and metal-binding properties of mutant forms of the amyloid A beta peptide of Alzheimer's disease. *Journal of Neurochemistry*, **1996**, 66, 740-7	6	94