

# Dominic M Walsh

## List of Publications by Year in descending order

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77  
papers

22,038  
citations

36203

51  
h-index

79541

73  
g-index

79  
all docs

79  
docs citations

79  
times ranked

17629  
citing authors

#	ARTICLE	IF	CITATIONS
1	Laboratory evolution of a sortase enzyme that modifies amyloid- $\beta^2$ protein. <i>Nature Chemical Biology</i> , 2021, 17, 317-325.	3.9	34
2	PrP is a central player in toxicity mediated by soluble aggregates of neurodegeneration-causing proteins. <i>Acta Neuropathologica</i> , 2020, 139, 503-526.	3.9	110
3	Dynamics of plasma biomarkers in Down syndrome: the relative levels of A $\beta$ 42 decrease with age, whereas NT1 tau and NfL increase. <i>Alzheimer's Research and Therapy</i> , 2020, 12, 27.	3.0	20
4	Amyloid $\beta^2$ -protein and beyond: the path forward in Alzheimer's disease. <i>Current Opinion in Neurobiology</i> , 2020, 61, 116-124.	2.0	87
5	Transcriptomic correlates of neurite degeneration due to human brain-derived A $\beta^2$ and protection by clinical anti-A $\beta^2$ antibodies. <i>Alzheimer's and Dementia</i> , 2020, 16, e043057.	0.4	0
6	A vicious cycle of $\beta^2$ amyloid-dependent neuronal hyperactivation. <i>Science</i> , 2019, 365, 559-565.	6.0	407
7	Target engagement in an alzheimer trial: Crenezumab lowers amyloid $\beta^2$ oligomers in cerebrospinal fluid. <i>Annals of Neurology</i> , 2019, 86, 215-224.	2.8	70
8	Identification of neurotoxic cross-linked amyloid- $\beta^2$ dimers in the Alzheimer's brain. <i>Brain</i> , 2019, 142, 1441-1457.	3.7	74
9	Soluble tau aggregates inhibit synaptic long-term depression and amyloid $\beta^2$ -facilitated LTD in vivo. <i>Neurobiology of Disease</i> , 2019, 127, 582-590.	2.1	25
10	miR-212 and miR-132 Are Downregulated in Neurally Derived Plasma Exosomes of Alzheimer's Patients. <i>Frontiers in Neuroscience</i> , 2019, 13, 1208.	1.4	129
11	PrP-grafted antibodies bind certain amyloid $\beta^2$ -protein aggregates, but do not prevent toxicity. <i>Brain Research</i> , 2019, 1710, 125-135.	1.1	14
12	Learnings about the complexity of extracellular tau aid development of a blood-based screen for Alzheimer's disease. <i>Alzheimer's and Dementia</i> , 2019, 15, 487-496.	0.4	94
13	Diffusible, highly bioactive oligomers represent a critical minority of soluble A $\beta^2$ in Alzheimer's disease brain. <i>Acta Neuropathologica</i> , 2018, 136, 19-40.	3.9	100
14	P106: A HEAD-TO-HEAD COMPARISON OF LEAD CLINICAL ANTI-A $\beta^2$ ANTIBODIES. <i>Alzheimer's and Dementia</i> , 2018, 14, P312.	0.4	0
15	P301: CERTAIN PLASMA N-TERMINAL TAU FRAGMENTS ARE ELEVATED IN AD AND AD-MCI COMPARED TO CONTROLS. <i>Alzheimer's and Dementia</i> , 2018, 14, P405.	0.4	0
16	DT03: TARGET ENGAGEMENT IN AN AD TRIAL: CRENEZUMAB LOWERS A $\beta^2$ OLIGOMER LEVELS IN CSF. <i>Alzheimer's and Dementia</i> , 2018, 14, P1669.	0.4	3
17	Cellular Prion Protein Mediates the Disruption of Hippocampal Synaptic Plasticity by Soluble Tau in Vivo. <i>Journal of Neuroscience</i> , 2018, 38, 10595-10606.	1.7	66
18	Extracellular Forms of A $\beta^2$ and Tau from iPSC Models of Alzheimer's Disease Disrupt Synaptic Plasticity. <i>Cell Reports</i> , 2018, 23, 1932-1938.	2.9	60

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19	Detection of Aggregation-Competent Tau in Neuron-Derived Extracellular Vesicles. <i>International Journal of Molecular Sciences</i> , 2018, 19, 663.	1.8	140
20	An in vitro paradigm to assess potential anti-A $\beta$ 2 antibodies for Alzheimer's disease. <i>Nature Communications</i> , 2018, 9, 2676.	5.8	50
21	Peripheral Interventions Enhancing Brain Glutamate Homeostasis Relieve Amyloid $\beta$ 2- and TNF $\alpha$ - Mediated Synaptic Plasticity Disruption in the Rat Hippocampus. <i>Cerebral Cortex</i> , 2017, 27, 3724-3735.	1.6	17
22	Developmental Regulation of Mitochondrial Apoptosis by c-Myc Governs Age- and Tissue-Specific Sensitivity to Cancer Therapeutics. <i>Cancer Cell</i> , 2017, 31, 142-156.	7.7	190
23	Soluble A $\beta$ 2 aggregates can inhibit prion propagation. <i>Open Biology</i> , 2017, 7, 170158.	1.5	11
24	Human Brain-Derived A $\beta$ 2 Oligomers Bind to Synapses and Disrupt Synaptic Activity in a Manner That Requires APP. <i>Journal of Neuroscience</i> , 2017, 37, 11947-11966.	1.7	108
25	Large Soluble Oligomers of Amyloid $\beta$ 2-Protein from Alzheimer Brain Are Far Less Neuroactive Than the Smaller Oligomers to Which They Dissociate. <i>Journal of Neuroscience</i> , 2017, 37, 152-163.	1.7	262
26	Non-Fibrillar Oligomeric Amyloid- $\beta$ 2 within Synapses. <i>Journal of Alzheimer's Disease</i> , 2016, 53, 787-800.	1.2	65
27	The Aggregation Paths and Products of A $\beta$ 242 Dimers Are Distinct from Those of the A $\beta$ 242 Monomer. <i>Biochemistry</i> , 2016, 55, 6150-6161.	1.2	22
28	Soluble A $\beta$ 2 oligomers impair hippocampal LTP by disrupting glutamatergic/GABAergic balance. <i>Neurobiology of Disease</i> , 2016, 85, 111-121.	2.1	120
29	A critical appraisal of the pathogenic protein spread hypothesis of neurodegeneration. <i>Nature Reviews Neuroscience</i> , 2016, 17, 251-260.	4.9	251
30	F5-02-01: Getting a handle on soluble A $\beta$ in Alzheimer's disease brains. , 2015, 11, P304-P305.		0
31	Tau immunization: a cautionary tale?. <i>Neurobiology of Aging</i> , 2015, 36, 1316-1332.	1.5	28
32	The aqueous phase of Alzheimer's disease brain contains assemblies built from $\sim$ 44 and $\sim$ 47 kDa A $\beta$ 2 species. <i>Alzheimer's and Dementia</i> , 2015, 11, 1286-1305.	0.4	54
33	A highly sensitive novel immunoassay specifically detects low levels of soluble A $\beta$ 2 oligomers in human cerebrospinal fluid. <i>Alzheimer's Research and Therapy</i> , 2015, 7, 14.	3.0	78
34	Autoregulated paracellular clearance of amyloid- $\beta$ 2 across the blood-brain barrier. <i>Science Advances</i> , 2015, 1, e1500472.	4.7	113
35	N-Terminal Extensions Retard A $\beta$ 242 Fibril Formation but Allow Cross-Seeding and Coaggregation with A $\beta$ 242. <i>Journal of the American Chemical Society</i> , 2015, 137, 14673-14685.	6.6	58
36	C-Terminally Truncated Forms of Tau, But Not Full-Length Tau or Its C-Terminal Fragments, Are Released from Neurons Independently of Cell Death. <i>Journal of Neuroscience</i> , 2015, 35, 10851-10865.	1.7	131

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37	A Human Monoclonal IgG That Binds A $\beta$ 2 Assemblies and Diverse Amyloids Exhibits Anti-Amyloid Activities <i>In Vitro</i> and <i>In Vivo</i> . <i>Journal of Neuroscience</i> , 2015, 35, 6265-6276.	1.7	23
38	Anti-A $\beta$ 2 antibodies incapable of reducing cerebral A $\beta$ 2 oligomers fail to attenuate spatial reference memory deficits in J20 mice. <i>Neurobiology of Disease</i> , 2015, 82, 372-384.	2.1	37
39	IgG Conformer's Binding to Amyloidogenic Aggregates. <i>PLoS ONE</i> , 2015, 10, e0137344.	1.1	5
40	Peripheral Administration of a Humanized Anti-PrP Antibody Blocks Alzheimer's Disease A $\beta$ 2 Synaptotoxicity. <i>Journal of Neuroscience</i> , 2014, 34, 6140-6145.	1.7	68
41	mGlu5 receptors and cellular prion protein mediate amyloid- $\beta$ -facilitated synaptic long-term depression <i>in vivo</i> . <i>Nature Communications</i> , 2014, 5, 3374.	5.8	157
42	A $\beta$ 2 dimers differ from monomers in structural propensity, aggregation paths and population of synaptotoxic assemblies. <i>Biochemical Journal</i> , 2014, 461, 413-426.	1.7	71
43	Secreted Amyloid $\beta$ -Proteins in a Cell Culture Model Include N-Terminally Extended Peptides That Impair Synaptic Plasticity. <i>Biochemistry</i> , 2014, 53, 3908-3921.	1.2	85
44	Neurotransmitter receptor and time dependence of the synaptic plasticity disrupting actions of Alzheimer's disease A $\beta$ 2 <i>in vivo</i> . <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130147.	1.8	23
45	Simultaneous measurement of a range of particle sizes during A $\beta$ 2 fibrillogenesis quantified using fluorescence correlation spectroscopy. <i>Biochemical and Biophysical Research Communications</i> , 2014, 448, 195-199.	1.0	25
46	APP Homodimers Transduce an Amyloid- $\beta$ -Mediated Increase in Release Probability at Excitatory Synapses. <i>Cell Reports</i> , 2014, 7, 1560-1576.	2.9	109
47	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. <i>Journal of Alzheimer's Disease</i> , 2013, 33, 923-928.	1.2	10
48	Alzheimer brain-derived amyloid $\beta$ -protein impairs synaptic remodeling and memory consolidation. <i>Neurobiology of Aging</i> , 2013, 34, 1315-1327.	1.5	54
49	Amyloid- $\beta$ nanotubes are associated with prion protein-dependent synaptotoxicity. <i>Nature Communications</i> , 2013, 4, 2416.	5.8	112
50	The levels of water-soluble and triton-soluble A $\beta$ 2 are increased in Alzheimer's disease brain. <i>Brain Research</i> , 2012, 1450, 138-147.	1.1	47
51	Alzheimer's Disease and the Amyloid $\beta$ -Protein. <i>Progress in Molecular Biology and Translational Science</i> , 2012, 107, 101-124.	0.9	106
52	Soluble amyloid $\beta$ -protein dimers isolated from Alzheimer cortex directly induce Tau hyperphosphorylation and neuritic degeneration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 5819-5824.	3.3	770
53	Interaction between prion protein and toxic amyloid $\beta$ 2 assemblies can be therapeutically targeted at multiple sites. <i>Nature Communications</i> , 2011, 2, 336.	5.8	263
54	Alzheimer's Disease Brain-Derived Amyloid- $\beta$ -Mediated Inhibition of LTP <i>In Vivo</i> Is Prevented by Immunotargeting Cellular Prion Protein. <i>Journal of Neuroscience</i> , 2011, 31, 7259-7263.	1.7	215

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55	$\beta$ -Secretase cleavage is not required for generation of the intracellular C-terminal domain of the amyloid precursor family of proteins. <i>FEBS Journal</i> , 2010, 277, 1503-1518.	2.2	22
56	Amyloid $\beta$ -Protein Dimers Rapidly Form Stable Synaptotoxic Protofibrils. <i>Journal of Neuroscience</i> , 2010, 30, 14411-14419.	1.7	232
57	The presence of sodium dodecyl sulphate-stable $A\beta$ dimers is strongly associated with Alzheimer-type dementia. <i>Brain</i> , 2010, 133, 1328-1341.	3.7	229
58	Isolation of Low-n Amyloid $\beta$ -Protein Oligomers from Cultured Cells, CSF, and Brain. <i>Methods in Molecular Biology</i> , 2010, 670, 33-44.	0.4	54
59	Alzheimer's disease: synaptic dysfunction and $A\beta$ . <i>Molecular Neurodegeneration</i> , 2009, 4, 48.	4.4	388
60	A facile method for expression and purification of the Alzheimer's disease-associated amyloid $\beta$ -peptide. <i>FEBS Journal</i> , 2009, 276, 1266-1281.	2.2	237
61	Soluble Oligomers of Amyloid $\beta$ Protein Facilitate Hippocampal Long-Term Depression by Disrupting Neuronal Glutamate Uptake. <i>Neuron</i> , 2009, 62, 788-801.	3.8	818
62	Amyloid- $\beta$ protein dimers isolated directly from Alzheimer's brains impair synaptic plasticity and memory. <i>Nature Medicine</i> , 2008, 14, 837-842.	15.2	3,225
63	Aggregation and catabolism of disease-associated intra- $A\beta$ mutations: reduced proteolysis of $A\beta$ A21G by neprilysin. <i>Neurobiology of Disease</i> , 2008, 31, 442-450.	2.1	88
64	Amyloid $\beta$ Protein Dimer-Containing Human CSF Disrupts Synaptic Plasticity: Prevention by Systemic Passive Immunization. <i>Journal of Neuroscience</i> , 2008, 28, 4231-4237.	1.7	293
65	Intracerebroventricular Administration of Amyloid $\beta$ -protein Oligomers Selectively Increases Dorsal Hippocampal Dialysate Glutamate Levels in the Awake Rat. <i>Sensors</i> , 2008, 8, 7428-7437.	2.1	20
66	Natural Oligomers of the Alzheimer Amyloid- $\beta$ Protein Induce Reversible Synapse Loss by Modulating an NMDA-Type Glutamate Receptor-Dependent Signaling Pathway. <i>Journal of Neuroscience</i> , 2007, 27, 2866-2875.	1.7	1,445
67	Amyloid $\beta$ protein immunotherapy neutralizes $A\beta$ oligomers that disrupt synaptic plasticity in vivo. <i>Nature Medicine</i> , 2005, 11, 556-561.	15.2	485
68	Natural oligomers of the amyloid- $\beta$ protein specifically disrupt cognitive function. <i>Nature Neuroscience</i> , 2005, 8, 79-84.	7.1	1,595
69	Certain Inhibitors of Synthetic Amyloid $\beta$ -Peptide ( $A\beta$ ) Fibrillogenesis Block Oligomerization of Natural $A\beta$ and Thereby Rescue Long-Term Potentiation. <i>Journal of Neuroscience</i> , 2005, 25, 2455-2462.	1.7	286
70	Deciphering the Molecular Basis of Memory Failure in Alzheimer's Disease. <i>Neuron</i> , 2004, 44, 181-193.	3.8	1,127
71	$\beta$ -Secretase Cleavage and Binding to FE65 Regulate the Nuclear Translocation of the Intracellular C-Terminal Domain (ICD) of the APP Family of Proteins. <i>Biochemistry</i> , 2003, 42, 6664-6673.	1.2	94
72	The Many Faces of A $\beta$ : Structures and Activity. <i>Current Medicinal Chemistry Immunology, Endocrine &amp; Metabolic Agents</i> , 2003, 3, 277-291.	0.2	19

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73	Naturally secreted oligomers of amyloid $\beta$ protein potently inhibit hippocampal long-term potentiation in vivo. <i>Nature</i> , 2002, 416, 535-539.	13.7	3,979
74	An improved method of preparing the amyloid $\beta$ -protein for fibrillogenesis and neurotoxicity experiments. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 2000, 7, 166-178.	1.4	232
75	Protofibrillar Intermediates of Amyloid $\beta$ -Protein Induce Acute Electrophysiological Changes and Progressive Neurotoxicity in Cortical Neurons. <i>Journal of Neuroscience</i> , 1999, 19, 8876-8884.	1.7	926
76	Amyloid $\beta$ -Protein Fibrillogenesis. <i>Journal of Biological Chemistry</i> , 1997, 272, 22364-22372.	1.6	967
77	Aggregation and Metal Binding Properties of Mutant Forms of the Amyloid $\beta$ Peptide of Alzheimer's Disease. <i>Journal of Neurochemistry</i> , 1996, 66, 740-747.	2.1	105