

# Dennis J Selkoe

## List of Publications by Citations

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112 papers	33,424 citations	63 h-index	130 g-index
130 ext. papers	36,760 ext. citations	16.4 avg, IF	7.97 L-index

#	Paper	IF	Citations
112	Alzheimer's disease is a synaptic failure. <i>Science</i> , <b>2002</b> , 298, 789-91	33.3	3246
111	The amyloid hypothesis of Alzheimer's disease at 25 years. <i>EMBO Molecular Medicine</i> , <b>2016</b> , 8, 595-608	12	2876
110	Amyloid-beta protein dimers isolated directly from Alzheimer's brains impair synaptic plasticity and memory. <i>Nature Medicine</i> , <b>2008</b> , 14, 837-42	50.5	2779
109	Amyloid beta-peptide is produced by cultured cells during normal metabolism. <i>Nature</i> , <b>1992</b> , 359, 322-5	50.4	1791
108	Two transmembrane aspartates in presenilin-1 required for presenilin endoproteolysis and gamma-secretase activity. <i>Nature</i> , <b>1999</b> , 398, 513-7	50.4	1705
107	A beta oligomers - a decade of discovery. <i>Journal of Neurochemistry</i> , <b>2007</b> , 101, 1172-84	6	1609
106	Mutation of the beta-amyloid precursor protein in familial Alzheimer's disease increases beta-protein production. <i>Nature</i> , <b>1992</b> , 360, 672-4	50.4	1594
105	Translating cell biology into therapeutic advances in Alzheimer's disease. <i>Nature</i> , <b>1999</b> , 399, A23-31	50.4	1214
104	Folding proteins in fatal ways. <i>Nature</i> , <b>2003</b> , 426, 900-4	50.4	1191
103	Mutant presenilins of Alzheimer's disease increase production of 42-residue amyloid beta-protein in both transfected cells and transgenic mice. <i>Nature Medicine</i> , <b>1997</b> , 3, 67-72	50.5	1183
102	βSynuclein occurs physiologically as a helically folded tetramer that resists aggregation. <i>Nature</i> , <b>2011</b> , 477, 107-10	50.4	849
101	Soluble oligomers of the amyloid beta-protein impair synaptic plasticity and behavior. <i>Behavioural Brain Research</i> , <b>2008</b> , 192, 106-13	3.4	844
100	Targeting of cell-surface beta-amyloid precursor protein to lysosomes: alternative processing into amyloid-bearing fragments. <i>Nature</i> , <b>1992</b> , 357, 500-3	50.4	817
99	Gamma-secretase is a membrane protein complex comprised of presenilin, nicastrin, Aph-1, and Pen-2. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2003</b> , 100, 6382-7	11.5	665
98	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> , <b>2011</b> , 108, 5819-24	11.5	641
97	Toward a comprehensive theory for Alzheimer's disease. Hypothesis: Alzheimer's disease is caused by the cerebral accumulation and cytotoxicity of amyloid beta-protein. <i>Annals of the New York Academy of Sciences</i> , <b>2000</b> , 924, 17-25	6.5	481
96	The Swedish mutation causes early-onset Alzheimer's disease by beta-secretase cleavage within the secretory pathway. <i>Nature Medicine</i> , <b>1995</b> , 1, 1291-6	50.5	466

95	The E280A presenilin 1 Alzheimer mutation produces increased A beta 42 deposition and severe cerebellar pathology. <i>Nature Medicine</i> , <b>1996</b> , 2, 1146-50	50.5	440
94	Alzheimer's disease results from the cerebral accumulation and cytotoxicity of amyloid beta-protein. <i>Journal of Alzheimer's Disease</i> , <b>2001</b> , 3, 75-80	4.3	437
93	Resolving controversies on the path to Alzheimer's therapeutics. <i>Nature Medicine</i> , <b>2011</b> , 17, 1060-5	50.5	383
92	Amyloid beta-protein deposition in tissues other than brain in Alzheimer's disease. <i>Nature</i> , <b>1989</b> , 341, 226-30	50.4	381
91	Activity-dependent isolation of the presenilin- gamma -secretase complex reveals nicastrin and a gamma substrate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2002</b> , 99, 2720-5	11.5	346
90	Presenilin: running with scissors in the membrane. <i>Cell</i> , <b>2007</b> , 131, 215-21	56.2	313
89	Alzheimer's disease. <i>Cold Spring Harbor Perspectives in Biology</i> , <b>2011</b> , 3,	10.2	310
88	Isolation of low-molecular-weight proteins from amyloid plaque fibers in Alzheimer's disease. <i>Journal of Neurochemistry</i> , <b>1986</b> , 46, 1820-34	6	310
87	Aggregation of secreted amyloid beta-protein into sodium dodecyl sulfate-stable oligomers in cell culture. <i>Journal of Biological Chemistry</i> , <b>1995</b> , 270, 9564-70	5.4	306
86	Nasal administration of amyloid-beta peptide decreases cerebral amyloid burden in a mouse model of Alzheimer's disease. <i>Annals of Neurology</i> , <b>2000</b> , 48, 567-579	9.4	295
85	Preventing Alzheimer's disease. <i>Science</i> , <b>2012</b> , 337, 1488-92	33.3	280
84	Antibodies to paired helical filaments in Alzheimer's disease do not recognize normal brain proteins. <i>Nature</i> , <b>1983</b> , 304, 727-30	50.4	259
83	α-Adrenoreceptor is a regulator of the β-synuclein gene driving risk of Parkinson's disease. <i>Science</i> , <b>2017</b> , 357, 891-898	33.3	238
82	Deciphering the genetic basis of Alzheimer's disease. <i>Annual Review of Genomics and Human Genetics</i> , <b>2002</b> , 3, 67-99	9.7	226
81	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> , <b>2000</b> , 7, 166-78	2.7	211
80	Intraneuronal Aβ2 accumulation in Down syndrome brain. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , <b>2002</b> , 9, 88-102	2.7	209
79	Alzheimer disease: mechanistic understanding predicts novel therapies. <i>Annals of Internal Medicine</i> , <b>2004</b> , 140, 627-38	8	206
78	Purification and characterization of the human gamma-secretase complex. <i>Biochemistry</i> , <b>2004</b> , 43, 9774-82	39.2	206

77	A substrate-based difluoro ketone selectively inhibits Alzheimer's gamma-secretase activity. <i>Journal of Medicinal Chemistry</i> , <b>1998</b> , 41, 6-9	8.3	204
76	A critical appraisal of the pathogenic protein spread hypothesis of neurodegeneration. <i>Nature Reviews Neuroscience</i> , <b>2016</b> , 17, 251-60	13.5	198
75	Large Soluble Oligomers of Amyloid $\beta$ Protein from Alzheimer Brain Are Far Less Neuroactive Than the Smaller Oligomers to Which They Dissociate. <i>Journal of Neuroscience</i> , <b>2017</b> , 37, 152-163	6.6	185
74	Presenilin 1 regulates the processing of beta-amyloid precursor protein C-terminal fragments and the generation of amyloid beta-protein in endoplasmic reticulum and Golgi. <i>Biochemistry</i> , <b>1998</b> , 37, 16463-71	3.2	166
73	Identification of beta-secretase (BACE1) substrates using quantitative proteomics. <i>PLoS ONE</i> , <b>2009</b> , 4, e8477	3.7	140
72	Environmental novelty activates $\alpha$ -adrenergic signaling to prevent the impairment of hippocampal LTP by A $\beta$ oligomers. <i>Neuron</i> , <b>2013</b> , 77, 929-41	13.9	122
71	Detergent-dependent dissociation of active gamma-secretase reveals an interaction between Pen-2 and PS1-NTF and offers a model for subunit organization within the complex. <i>Biochemistry</i> , <b>2004</b> , 43, 323-33	3.2	122
70	Alzheimer disease and aducanumab: adjusting our approach. <i>Nature Reviews Neurology</i> , <b>2019</b> , 15, 365-366	5	107
69	Tau antisera recognize neurofibrillary tangles in a range of neurodegenerative disorders. <i>Annals of Neurology</i> , <b>1987</b> , 22, 514-20	9.4	107
68	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> , <b>2015</b> , 35, 10851-65	6.6	106
67	Neurofibrillary tangles and senile plaques in aged bears. <i>Journal of Neuropathology and Experimental Neurology</i> , <b>1988</b> , 47, 629-41	3.1	102
66	Nicastrin functions to sterically hinder $\beta$ -secretase-substrate interactions driven by substrate transmembrane domain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E509-18	11.5	95
65	Normal cellular processing of the beta-amyloid precursor protein results in the secretion of the amyloid beta peptide and related molecules. <i>Annals of the New York Academy of Sciences</i> , <b>1993</b> , 695, 109-16	6.5	94
64	Soluble A $\beta$ oligomers impair hippocampal LTP by disrupting glutamatergic/GABAergic balance. <i>Neurobiology of Disease</i> , <b>2016</b> , 85, 111-121	7.5	92
63	New ELISAs with high specificity for soluble oligomers of amyloid $\beta$ protein detect natural A $\beta$ oligomers in human brain but not CSF. <i>Alzheimer's and Dementia</i> , <b>2013</b> , 9, 99-112	1.2	92
62	The therapeutics of Alzheimer's disease: where we stand and where we are heading. <i>Annals of Neurology</i> , <b>2013</b> , 74, 328-36	9.4	91
61	Neurofibrillary degeneration of cholinergic and noncholinergic neurons of the basal forebrain in Alzheimer's disease. <i>Annals of Neurology</i> , <b>1986</b> , 20, 482-8	9.4	89
60	Additive effects of PS1 and APP mutations on secretion of the 42-residue amyloid beta-protein. <i>Neurobiology of Disease</i> , <b>1998</b> , 5, 107-16	7.5	87

59	Detection of Aggregation-Competent Tau in Neuron-Derived Extracellular Vesicles. <i>International Journal of Molecular Sciences</i> , <b>2018</b> , 19,	6.3	86
58	The amyloid-beta forming tripeptide cleavage mechanism of $\beta$ secretase. <i>ELife</i> , <b>2016</b> , 5,	8.9	74
57	Secreted amyloid $\beta$ proteins in a cell culture model include N-terminally extended peptides that impair synaptic plasticity. <i>Biochemistry</i> , <b>2014</b> , 53, 3908-21	3.2	71
56	Abrogating Native $\beta$ synuclein Tetramers in Mice Causes a L-DOPA-Responsive Motor Syndrome Closely Resembling Parkinson's Disease. <i>Neuron</i> , <b>2018</b> , 100, 75-90.e5	13.9	71
55	Deciphering the genesis and fate of amyloid beta-protein yields novel therapies for Alzheimer disease. <i>Journal of Clinical Investigation</i> , <b>2002</b> , 110, 1375-81	15.9	69
54	A mechanistic hypothesis for the impairment of synaptic plasticity by soluble A $\beta$ ligomers from Alzheimer's brain. <i>Journal of Neurochemistry</i> , <b>2020</b> , 154, 583-597	6	68
53	Aging, amyloid, and Alzheimer's disease: a perspective in honor of Carl Cotman. <i>Neurochemical Research</i> , <b>2003</b> , 28, 1705-13	4.6	65
52	A highly sensitive novel immunoassay specifically detects low levels of soluble A $\beta$ ligomers in human cerebrospinal fluid. <i>Alzheimer's Research and Therapy</i> , <b>2015</b> , 7, 14	9	63
51	miR-212 and miR-132 Are Downregulated in Neurally Derived Plasma Exosomes of Alzheimer's Patients. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 1208	5.1	61
50	Learnings about the complexity of extracellular tau aid development of a blood-based screen for Alzheimer's disease. <i>Alzheimer's and Dementia</i> , <b>2019</b> , 15, 487-496	1.2	60
49	Purification of $\beta$ synuclein from human brain reveals an instability of endogenous multimers as the protein approaches purity. <i>Biochemistry</i> , <b>2015</b> , 54, 279-92	3.2	56
48	Amyloid $\beta$ protein and beyond: the path forward in Alzheimer's disease. <i>Current Opinion in Neurobiology</i> , <b>2020</b> , 61, 116-124	7.6	56
47	Effects of the amyloid precursor protein Glu693-Gln Dutch mutation on the production and stability of amyloid $\beta$ protein. <i>Biochemical Journal</i> , <b>1999</b> , 340, 703-709	3.8	54
46	The deposition of amyloid proteins in the aging mammalian brain: implications for Alzheimer's disease. <i>Annals of Medicine</i> , <b>1989</b> , 21, 73-6	1.5	53
45	Association between $\beta$ synuclein blood transcripts and early, neuroimaging-supported Parkinson's disease. <i>Brain</i> , <b>2015</b> , 138, 2659-71	11.2	47
44	Physical and functional interaction between the $\beta$ and $\beta$ secretases: A new model of regulated intramembrane proteolysis. <i>Journal of Cell Biology</i> , <b>2015</b> , 211, 1157-76	7.3	45
43	Cell-type Dependent Alzheimer's Disease Phenotypes: Probing the Biology of Selective Neuronal Vulnerability. <i>Stem Cell Reports</i> , <b>2017</b> , 9, 1868-1884	8	43
42	Target engagement in an alzheimer trial: Crenezumab lowers amyloid $\beta$ ligomers in cerebrospinal fluid. <i>Annals of Neurology</i> , <b>2019</b> , 86, 215-224	9.4	41

41	Identification of neurotoxic cross-linked amyloid- $\beta$ dimers in the Alzheimer's brain. <i>Brain</i> , <b>2019</b> , 142, 1441-1457	11.5	40
40	A cellular complex of BACE1 and $\beta$ -secretase sequentially generates A $\beta$ from its full-length precursor. <i>Journal of Cell Biology</i> , <b>2019</b> , 218, 644-663	7.3	39
39	SnapShot: pathobiology of Alzheimer's disease. <i>Cell</i> , <b>2013</b> , 154, 468-468.e1	56.2	35
38	A user's guide for $\beta$ -synuclein biomarker studies in biological fluids: Perianalytical considerations. <i>Movement Disorders</i> , <b>2017</b> , 32, 1117-1130	7	35
37	Rapid purification of active gamma-secretase, an intramembrane protease implicated in Alzheimer's disease. <i>Journal of Neurochemistry</i> , <b>2008</b> , 104, 210-20	6	35
36	Systematic analysis of time-dependent neural effects of soluble amyloid $\beta$ oligomers in culture and in vivo: Prevention by scyllo-inositol. <i>Neurobiology of Disease</i> , <b>2015</b> , 82, 152-163	7.5	34
35	Cell models of lipid-rich $\beta$ -synuclein aggregation validate known modifiers of $\beta$ -synuclein biology and identify stearoyl-CoA desaturase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 20760-20769	11.5	34
34	Enriched environment enhances $\beta$ -adrenergic signaling to prevent microglia inflammation by $\beta$ -amyloid. <i>EMBO Molecular Medicine</i> , <b>2018</b> , 10,	12	30
33	Developing preventive therapies for chronic diseases: lessons learned from Alzheimer's disease. <i>Nutrition Reviews</i> , <b>2007</b> , 65, S239-43	6.4	29
32	Aph-1 associates directly with full-length and C-terminal fragments of gamma-secretase substrates. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 11378-91	5.4	28
31	Rapid Notch1 nuclear translocation after ligand binding depends on presenilin-associated gamma-secretase activity. <i>Annals of the New York Academy of Sciences</i> , <b>2000</b> , 920, 223-6	6.5	28
30	Decoding the synaptic dysfunction of bioactive human AD brain soluble A $\beta$ to inspire novel therapeutic avenues for Alzheimer's disease. <i>Acta Neuropathologica Communications</i> , <b>2018</b> , 6, 121	7.3	28
29	An in vitro paradigm to assess potential anti-A $\beta$ antibodies for Alzheimer's disease. <i>Nature Communications</i> , <b>2018</b> , 9, 2676	17.4	26
28	Potential human transmission of amyloid $\beta$ pathology: surveillance and risks. <i>Lancet Neurology</i> , <b>2020</b> , 19, 872-878	24.1	23
27	Environmental enrichment prevents A $\beta$ oligomer-induced synaptic dysfunction through mirna-132 and hdac3 signaling pathways. <i>Neurobiology of Disease</i> , <b>2020</b> , 134, 104617	7.5	19
26	Plasma N-terminal tau fragment levels predict future cognitive decline and neurodegeneration in healthy elderly individuals. <i>Nature Communications</i> , <b>2020</b> , 11, 6024	17.4	18
25	A Stearoyl-Coenzyme A Desaturase Inhibitor Prevents Multiple Parkinson Disease Phenotypes in $\beta$ -Synuclein Mice. <i>Annals of Neurology</i> , <b>2021</b> , 89, 74-90	9.4	16
24	Multiple BACE1 inhibitors abnormally increase the BACE1 protein level in neurons by prolonging its half-life. <i>Alzheimer's and Dementia</i> , <b>2019</b> , 15, 1183-1194	1.2	12

23	Analysis of $\beta$ -synuclein species enriched from cerebral cortex of humans with sporadic dementia with Lewy bodies. <i>Brain Communications</i> , <b>2020</b> , 2, fcaa010	4.5	12
22	Alzheimer's amyloid of another flavour. <i>Nature Medicine</i> , <b>1995</b> , 1, 998-9	50.5	11
21	Light at the End of the Amyloid Tunnel. <i>Biochemistry</i> , <b>2018</b> , 57, 5921-5922	3.2	11
20	Toward a remembrance of things past: deciphering Alzheimer disease. <i>Harvey Lectures</i> , <b>2003</b> , 99, 23-45		11
19	Hydrophilic loop 1 of Presenilin-1 and the APP GxxxG transmembrane motif regulate $\beta$ -secretase function in generating Alzheimer-causing A $\beta$ peptides. <i>Journal of Biological Chemistry</i> , <b>2021</b> , 296, 100393	5.4	8
18	Caspase-1 clipping causes complications for $\beta$ -synuclein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, 9958-60	11.5	6
17	$\beta$ -Secretase: a horseshoe structure brings good luck. <i>Cell</i> , <b>2014</b> , 158, 247-249	56.2	6
16	Altered conformation of $\beta$ -synuclein drives dysfunction of synaptic vesicles in a synaptosomal model of Parkinson's disease. <i>Cell Reports</i> , <b>2021</b> , 36, 109333	10.6	5
15	Wild-type GBA1 increases the $\beta$ -synuclein tetramer-monomer ratio, reduces lipid-rich aggregates, and attenuates motor and cognitive deficits in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	5
14	An ultra-sensitive immunoassay detects and quantifies soluble A $\beta$ oligomers in human plasma. <i>Alzheimer's and Dementia</i> , <b>2021</b> ,	1.2	3
13	DT-02-03: TARGET ENGAGEMENT IN AN AD TRIAL: CRENEZUMAB LOWERS A $\beta$ OLIGOMER LEVELS IN CSF <b>2018</b> , 14, P1669-P1670		3
12	Nasal administration of amyloid- $\beta$ peptide decreases cerebral amyloid burden in a mouse model of Alzheimer's disease <b>2000</b> , 48, 567		2
11	Predicting development of AD clinical symptoms and their progression through a collection of novel plasma A $\beta$ immunoassays. <i>Alzheimer's and Dementia</i> , <b>2020</b> , 16, e043670	1.2	1
10	Identification of the A $\beta$ 7/42 peptide ratio in CSF as an improved A $\beta$ biomarker for Alzheimer's disease.. <i>Alzheimer's and Dementia</i> , <b>2022</b> ,	1.2	1
9	A Brain-Penetrant Stearoyl-CoA Desaturase Inhibitor Reverses $\beta$ -Synuclein Toxicity.. <i>Neurotherapeutics</i> , <b>2022</b> , 1	6.4	0
8	Generation and application of semi-synthetic p-Tau181 calibrator for immunoassay calibration.. <i>Biochemical and Biophysical Research Communications</i> , <b>2022</b> , 611, 85-90	3.4	0
7	Plasma levels of an N-terminal tau fragment are highly associated with future cognitive decline and neurodegeneration in clinically normal elderly. <i>Alzheimer's and Dementia</i> , <b>2020</b> , 16, e045261	1.2	
6	P4-221: Nicastrin functions as a molecular gatekeeper to a high-affinity $\beta$ -secretase-substrate interaction driven by substrate transmembrane domain <b>2015</b> , 11, P864-P864		

- 5 HPLC Analysis of Proteins from Alzheimer Paired Helical Filaments. *Annals of the New York Academy of Sciences*, **1987**, 494, 369-372 6.5
- 4 Studies on the Relationship between Plasma Proteins and Amyloid Fibrils Found in Alzheimer's Disease. *Annals of the New York Academy of Sciences*, **1988**, 529, 233-235 6.5
- 3 Alzheimer's drugs: Does reducing amyloid work?-Response. *Science*, **2021**, 374, 545-546 33.3
- 2 Transcriptomic correlates of neurite degeneration due to human brain-derived A $\beta$  and protection by clinical anti-A $\beta$  antibodies. *Alzheimer's and Dementia*, **2020**, 16, e043057 1.2
- 1 Non-denaturing affinity purification of soluble oligomeric A $\beta$  from human brain using a novel calcium-sensitive monoclonal antibody.. *Alzheimer's and Dementia*, **2021**, 17 Suppl 3, e051725 1.2