Michael S Wolfe

List of Publications by Year
in descending order

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67 papers	14,560 citations	94433 37 h-index	110387 64 g-index
72 all docs	72 docs citations	72 times ranked	10464 citing authors

#	Article	IF	Citations
1	Naturally secreted oligomers of amyloid Î² protein potently inhibit hippocampal long-term potentiation in vivo. Nature, 2002, 416, 535-539.	27.8	3,979
2	A presenilin-1-dependent Î³-secretase-like protease mediates release of Notch intracellular domain. Nature, 1999, 398, 518-522.	27.8	2,002
3	Two transmembrane aspartates in presenilin-1 required for presenilin endoproteolysis and Î³-secretase activity. Nature, 1999, 398, 513-517.	27.8	1,873
4	Î³-Secretase is a membrane protein complex comprised of presenilin, nicastrin, aph-1, and pen-2. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6382-6387.	7.1	739
5	Transition-state analogue inhibitors of Î³-secretase bind directly to presenilin-1. Nature Cell Biology, 2000, 2, 428-434.	10.3	531
6	Presenilins and Â-Secretase: Structure, Function, and Role in Alzheimer Disease. Cold Spring Harbor Perspectives in Medicine, 2012, 2, a006304-a006304.	6.2	375
7	Activity-dependent isolation of the presenilin- Â-secretase complex reveals nicastrin and a Â substrate. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 2720-2725.	7.1	372
8	Intramembrane Proteolysis: Theme and Variations. Science, 2004, 305, 1119-1123.	12.6	330
9	Peptidomimetic Probes and Molecular Modeling Suggest That Alzheimer's Î³-Secretase Is an Intramembrane-Cleaving Aspartyl Protease. Biochemistry, 1999, 38, 4720-4727.	2.5	319
10	The Transmembrane Aspartates in Presenilin 1 and 2 Are Obligatory for Î³-Secretase Activity and Amyloid Î²-Protein Generation. Journal of Biological Chemistry, 2000, 275, 3173-3178.	3.4	226
11	Purification and Characterization of the Human Î³-Secretase Complexâ€. Biochemistry, 2004, 43, 9774-9789.	2.5	225
12	A Substrate-Based Difluoro Ketone Selectively Inhibits Alzheimer's Î³-Secretase Activity. Journal of Medicinal Chemistry, 1998, 41, 6-9.	6.4	219
13	The initial substrate-binding site of Â-secretase is located on presenilin near the active site. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3230-3235.	7.1	208
14	A presenilin dimer at the core of the Î³-secretase enzyme: Insights from parallel analysis of Notch 1 and APP proteolysis. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13075-13080.	7.1	203
15	Are Presenilins Intramembrane-Cleaving Proteases? Implications for the Molecular Mechanism of Alzheimer's Diseaseâ€. Biochemistry, 1999, 38, 11223-11230.	2.5	202
16	Assembly of the Î³-Secretase Complex Involves Early Formation of an Intermediate Subcomplex of Aph-1 and Nicastrin. Journal of Biological Chemistry, 2003, 278, 37213-37222.	3.4	178
17	Electron microscopic structure of purified, active Â-secretase reveals an aqueous intramembrane chamber and two pores. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 6889-6894.	7.1	157
18	Active Î³-Secretase Complexes Contain Only One of Each Component. Journal of Biological Chemistry, 2007, 282, 33985-33993.	3.4	155

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19	The amyloid-beta forming tripeptide cleavage mechanism of Î³-secretase. ELife, 2016, 5, .	6.0	140
20	Detergent-Dependent Dissociation of Active Î³-Secretase Reveals an Interaction between Pen-2 and PS1-NTF and Offers a Model for Subunit Organization within the Complex. Biochemistry, 2004, 43, 323-333.	2.5	127
21	Intramembrane Proteolysis. Chemical Reviews, 2009, 109, 1599-1612.	47.7	124
22	Designed Helical Peptides Inhibit an Intramembrane Protease. Journal of the American Chemical Society, 2003, 125, 11794-11795.	13.7	122
23	Nicastrin functions to sterically hinder Î³-secretaseâ€“substrate interactions driven by substrate transmembrane domain. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E509-18.	7.1	122
24	Alzheimer Presenilin-1 Mutations Dramatically Reduce Trimming of Long Amyloid Î²-Peptides (AÎ²) by Î³-Secretase to Increase 42-to-40-Residue AÎ². Journal of Biological Chemistry, 2014, 289, 31043-31052.	3.4	121
25	Dissociation between the Processivity and Total Activity of Î³-Secretase: Implications for the Mechanism of Alzheimer's Disease-Causing Presenilin Mutations. Biochemistry, 2011, 50, 9023-9035.	2.5	110
26	Amyloid Precursor Protein Associates with a Nicastrin-Dependent Docking Site on the Presenilin 1â€“Î³-Secretase Complex in Cells Demonstrated by Fluorescence Lifetime Imaging. Journal of Neuroscience, 2003, 23, 4560-4566.	3.6	109
27	Differential Effects of Inhibitors on the Î³-Secretase Complex. Journal of Biological Chemistry, 2003, 278, 16470-16473.	3.4	105
28	Cryoelectron Microscopy Structure of Purified Î³-Secretase at 12ÂÃ... Resolution. Journal of Molecular Biology, 2009, 385, 642-652.	4.2	104
29	Î³-Secretase Substrate Selectivity Can Be Modulated Directly via Interaction with a Nucleotide-binding Site. Journal of Biological Chemistry, 2005, 280, 41987-41996.	3.4	98
30	Structure and Function of the Î³-Secretase Complex. Biochemistry, 2019, 58, 2953-2966.	2.5	78
31	Î³-Secretase in biology and medicine. Seminars in Cell and Developmental Biology, 2009, 20, 219-224.	5.0	74
32	Intramembrane-cleaving Proteases. Journal of Biological Chemistry, 2009, 284, 13969-13973.	3.4	70
33	Difluoro Ketone Peptidomimetics Suggest a Large S1 Pocket for Alzheimer's Î³-Secretase:â€‰ Implications for Inhibitor Design. Journal of Medicinal Chemistry, 2000, 43, 3434-3442.	6.4	68
34	A cellular complex of BACE1 and Î³-secretase sequentially generates AÎ² from its full-length precursor. Journal of Cell Biology, 2019, 218, 644-663.	5.2	57
35	Discovery of a Subnanomolar Helicald-Tridecapeptide Inhibitor of Î³-Secretase. Journal of Medicinal Chemistry, 2004, 47, 3931-3933.	6.4	55
36	Probing pockets S2â€“S4â€² of the Î³-secretase active site with (hydroxyethyl)urea peptidomimetics. Bioorganic and Medicinal Chemistry Letters, 2004, 14, 1935-1938.	2.2	47

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37	Presenilin endoproteolysis mediated by an aspartyl protease activity pharmacologically distinct from Î³-secretase. Journal of Neurochemistry, 2003, 85, 1563-1574.	3.9	43
38	Transmembrane Substrate Determinants for Î³-Secretase Processing of APP CTFÎ². Biochemistry, 2016, 55, 5675-5688.	2.5	40
39	Stereoselective Synthesis of Freidinger Lactams Using Oxaziridines Derived from Amino Acids. Journal of Organic Chemistry, 1997, 62, 654-663.	3.2	38
40	Stereochemical Analysis of (Hydroxyethyl)urea Peptidomimetic Inhibitors of Î³-Secretase. Journal of Medicinal Chemistry, 2004, 47, 6485-6489.	6.4	36
41	Mechanisms of Î³-Secretase Activation and Substrate Processing. ACS Central Science, 2020, 6, 969-983.	11.3	34
42	Familial Alzheimerâ€™s disease mutations in amyloid protein precursor alter proteolysis by Î³-secretase to increase amyloid Î²-peptides of â‰¥45 residues. Journal of Biological Chemistry, 2021, 296, 100281.	3.4	34
43	Unraveling the complexity of Î³-secretase. Seminars in Cell and Developmental Biology, 2020, 105, 3-11.	5.0	33
44	Deducing the Transmembrane Domain Organization of Presenilin-1 in Î³-Secretase by Cysteine Disulfide Cross-Linking. Biochemistry, 2006, 45, 7598-7604.	2.5	30
45	Substrate recognition and processing by Î³-secretase. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183016.	2.6	29
46	Dysfunctional Î³-Secretase in Familial Alzheimerâ€™s Disease. Neurochemical Research, 2019, 44, 5-11.	3.3	26
47	Mechanism of Tripeptide Trimming of Amyloid Î²-Peptide 49 by Î³-Secretase. Journal of the American Chemical Society, 2022, 144, 6215-6226.	13.7	26
48	Hydrophilic loop 1 of Presenilin-1 and the APP GxxxG transmembrane motif regulate Î³-secretase function in generating Alzheimer-causing AÎ² peptides. Journal of Biological Chemistry, 2021, 296, 100393.	3.4	22
49	Identification of the AÎ²37/42 peptide ratio in CSF as an improved AÎ² biomarker for Alzheimer's disease. Alzheimer's and Dementia, 2023, 19, 79-96.	0.8	21
50	Presenilin/Î³-Secretase Activity Is Located in Acidic Compartments of Live Neurons. Journal of Neuroscience, 2022, 42, 145-154.	3.6	19
51	Synthesis of EnantiopureN-tert-Butoxycarbonyl-2-aminocycloalkanones. Synthetic Communications, 1992, 22, 3003-3012.	2.1	17
52	Probing Mechanisms and Therapeutic Potential of Î³-Secretase in Alzheimerâ€™s Disease. Molecules, 2021, 26, 388.	3.8	15
53	In search of pathogenic amyloid Î²-peptide in familial Alzheimer's disease. Progress in Molecular Biology and Translational Science, 2019, 168, 71-78.	1.7	14
54	Structure and mechanism of the Î³-secretase intramembrane protease complex. Current Opinion in Structural Biology, 2022, 74, 102373.	5.7	13

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55	Design of Substrate Transmembrane Mimetics as Structural Probes for Î³-Secretase. Journal of the American Chemical Society, 2020, 142, 3351-3355.	13.7	11
56	Membrane-embedded protease poses for photoshoot. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 401-402.	7.1	8
57	Mutations in the Amyloid-Î² Protein Precursor Reduce Mitochondrial Function and Alter Gene Expression Independent of 42-Residue Amyloid-Î² Peptide. Journal of Alzheimer's Disease, 2021, 83, 1039-1049.	2.6	5
58	Designed Helical Peptides as Functional Probes for Î³-Secretase. Biochemistry, 2019, 58, 4398-4407.	2.5	4
59	Targeting Î³-secretase for familial Alzheimerâ€™s disease. Medicinal Chemistry Research, 2021, 30, 1321-1327.	2.4	4
60	Design of Transmembrane Mimetic Structural Probes to Trap Different Stages of Î³-Secretaseâ€“Substrate Interaction. Journal of Medicinal Chemistry, 2021, 64, 15367-15378.	6.4	4
61	Discovery of aryl aminothiazole Î³-secretase modulators with novel effects on amyloid Î²-peptide production. Bioorganic and Medicinal Chemistry Letters, 2021, 54, 128446.	2.2	3
62	Verteporfin is a substrate-selective Î³-secretase inhibitor that binds the amyloid precursor protein transmembrane domain. Journal of Biological Chemistry, 2022, 298, 101792.	3.4	3
63	Substrate-based chemical probes for Alzheimerâ€™s Î³-secretase. Medicinal Chemistry Research, 2020, 29, 1122-1132.	2.4	2
64	Membrane protein takes the brakes off. Science, 2019, 363, 453-454.	12.6	1
65	O4â€11â€01: Targeting tau alternative mRNA splicing for dementias. Alzheimer's and Dementia, 2012, 8, P636.	0.8	0
66	O1-08-01: Dual-pathway carboxypeptidase activity is an intrinsic property of gamma-secretase. , 2013, 9, P142-P143.		0
67	Special issue of Medicinal Chemistry Research in honor of Professor Gary L. Grunewald. Medicinal Chemistry Research, 2021, 30, 1317.	2.4	0