

Harald Steiner

List of Publications by Year in descending order

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78
papers

8,396
citations

46918

47
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69108

77
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89
all docs

89
docs citations

89
times ranked

6070
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Reconstitution of γ -secretase activity. <i>Nature Cell Biology</i> , 2003, 5, 486-488. | 4.6 | 850 |
| 2 | A γ -secretase inhibitor blocks Notch signaling in vivo and causes a severe neurogenic phenotype in zebrafish. <i>EMBO Reports</i> , 2002, 3, 688-694. | 2.0 | 459 |
| 3 | Presenilin-dependent γ -secretase processing of β -amyloid precursor protein at a site corresponding to the S3 cleavage of Notch. <i>EMBO Reports</i> , 2001, 2, 835-841. | 2.0 | 457 |
| 4 | A Loss of Function Mutation of Presenilin-2 Interferes with Amyloid β -Peptide Production and Notch Signaling. <i>Journal of Biological Chemistry</i> , 1999, 274, 28669-28673. | 1.6 | 279 |
| 5 | Presenilin-1 mutations of leucine 166 equally affect the generation of the Notch and APP intracellular domains independent of their effect on A β 42 production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 8025-8030. | 3.3 | 265 |
| 6 | Glycine 384 is required for presenilin-1 function and is conserved in bacterial polytopic aspartyl proteases. <i>Nature Cell Biology</i> , 2000, 2, 848-851. | 4.6 | 263 |
| 7 | Presenilin-dependent Intramembrane Proteolysis of CD44 Leads to the Liberation of Its Intracellular Domain and the Secretion of an A β -like Peptide. <i>Journal of Biological Chemistry</i> , 2002, 277, 44754-44759. | 1.6 | 253 |
| 8 | PEN-2 Is an Integral Component of the γ -Secretase Complex Required for Coordinated Expression of Presenilin and Nicastrin. <i>Journal of Biological Chemistry</i> , 2002, 277, 39062-39065. | 1.6 | 244 |
| 9 | Presenilin and nicastrin regulate each other and determine amyloid β -peptide production via complex formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 8666-8671. | 3.3 | 229 |
| 10 | Presenilins mediate a dual intramembraneous γ -secretase cleavage of Notch-1. <i>EMBO Journal</i> , 2002, 21, 5408-5416. | 3.5 | 214 |
| 11 | Regulated intramembrane proteolysis - lessons from amyloid precursor protein processing. <i>Journal of Neurochemistry</i> , 2011, 117, 779-796. | 2.1 | 213 |
| 12 | Intramembrane Proteolysis by γ -Secretase. <i>Journal of Biological Chemistry</i> , 2008, 283, 29627-29631. | 1.6 | 186 |
| 13 | Insulin-degrading Enzyme Rapidly Removes the β -Amyloid Precursor Protein Intracellular Domain (AICD). <i>Journal of Biological Chemistry</i> , 2002, 277, 13389-13393. | 1.6 | 185 |
| 14 | Expression of Alzheimer's Disease-associated Presenilin-1 Is Controlled by Proteolytic Degradation and Complex Formation. <i>Journal of Biological Chemistry</i> , 1998, 273, 32322-32331. | 1.6 | 182 |
| 15 | Presenilin-1 affects trafficking and processing of β APP and is targeted in a complex with nicastrin to the plasma membrane. <i>Journal of Cell Biology</i> , 2002, 158, 551-561. | 2.3 | 179 |
| 16 | Alzheimer disease γ -secretase: a complex story of GxGD-type presenilin proteases. <i>Trends in Cell Biology</i> , 2002, 12, 556-562. | 3.6 | 165 |
| 17 | An Alzheimer's-associated TREM2 variant occurs at the ADAM cleavage site and affects shedding and phagocytic function. <i>EMBO Molecular Medicine</i> , 2017, 9, 1356-1365. | 3.3 | 164 |
| 18 | Active γ -Secretase Complexes Contain Only One of Each Component. <i>Journal of Biological Chemistry</i> , 2007, 282, 33985-33993. | 1.6 | 155 |

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|----|---|------|-----------|
| 19 | Generation of A β 238 and A β 242 Is Independently and Differentially Affected by Familial Alzheimer Disease-associated Presenilin Mutations and γ -Secretase Modulation. <i>Journal of Biological Chemistry</i> , 2008, 283, 677-683. | 1.6 | 152 |
| 20 | Intramembrane proteolysis by presenilins. <i>Nature Reviews Molecular Cell Biology</i> , 2000, 1, 217-224. | 16.1 | 151 |
| 21 | Identification of Distinct γ -Secretase Complexes with Different APH-1 Variants. <i>Journal of Biological Chemistry</i> , 2004, 279, 41340-41345. | 1.6 | 149 |
| 22 | Microbiota-derived short chain fatty acids modulate microglia and promote A β plaque deposition. <i>ELife</i> , 2021, 10, . | 2.8 | 148 |
| 23 | Presenilin-1 differentially facilitates endoproteolysis of the β -amyloid precursor protein and Notch. <i>Nature Cell Biology</i> , 2000, 2, 205-211. | 4.6 | 146 |
| 24 | Assembly, Trafficking and Function of γ -Secretase. <i>Neurodegenerative Diseases</i> , 2006, 3, 275-283. | 0.8 | 133 |
| 25 | The Biological and Pathological Function of the Presenilin-1 γ Exon 9 Mutation Is Independent of Its Defect to Undergo Proteolytic Processing. <i>Journal of Biological Chemistry</i> , 1999, 274, 7615-7618. | 1.6 | 121 |
| 26 | Requirement of PEN-2 for Stabilization of the Presenilin N-/C-terminal Fragment Heterodimer within the γ -Secretase Complex. <i>Journal of Biological Chemistry</i> , 2004, 279, 23255-23261. | 1.6 | 107 |
| 27 | Substrate recruitment of γ -secretase and mechanism of clinical presenilin mutations revealed by photoaffinity mapping. <i>EMBO Journal</i> , 2016, 35, 1628-1643. | 3.5 | 104 |
| 28 | Making the final cut: pathogenic amyloid- β peptide generation by γ -secretase. <i>Cell Stress</i> , 2018, 2, 292-310. | 1.4 | 100 |
| 29 | Amyloidogenic Function of the Alzheimer's Disease-Associated Presenilin 1 in the Absence of Endoproteolysis. <i>Biochemistry</i> , 1999, 38, 14600-14605. | 1.2 | 99 |
| 30 | Inhibition of amyloid- β plaque formation by α -synuclein. <i>Nature Medicine</i> , 2015, 21, 802-807. | 15.2 | 97 |
| 31 | Three-Amino Acid Spacing of Presenilin Endoproteolysis Suggests a General Stepwise Cleavage of γ -Secretase-Mediated Intramembrane Proteolysis. <i>Journal of Neuroscience</i> , 2010, 30, 7853-7862. | 1.7 | 93 |
| 32 | The presenilin C-terminus is required for ER-retention, nicastrin-binding and γ -secretase activity. <i>EMBO Journal</i> , 2004, 23, 4738-4748. | 3.5 | 91 |
| 33 | Generation of Alzheimer Disease-associated Amyloid β 242/43 Peptide by γ -Secretase Can Be Inhibited Directly by Modulation of Membrane Thickness. <i>Journal of Biological Chemistry</i> , 2012, 287, 21326-21334. | 1.6 | 89 |
| 34 | Novel γ -Secretase Enzyme Modulators Directly Target Presenilin Protein. <i>Journal of Biological Chemistry</i> , 2011, 286, 37181-37186. | 1.6 | 82 |
| 35 | Shedding of glycan-modifying enzymes by signal peptide peptidase-like 3 (<i>SPPL3</i>) regulates cellular N-glycosylation. <i>EMBO Journal</i> , 2014, 33, 2890-2905. | 3.5 | 81 |
| 36 | The GxGD Motif of Presenilin Contributes to Catalytic Function and Substrate Identification of γ -Secretase. <i>Journal of Neuroscience</i> , 2006, 26, 3821-3828. | 1.7 | 79 |

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|----|---|-----|-----------|
| 37 | Differential Localization and Identification of a Critical Aspartate Suggest Non-redundant Proteolytic Functions of the Presenilin Homologues SPPL2b and SPPL3. <i>Journal of Biological Chemistry</i> , 2005, 280, 39515-39523. | 1.6 | 78 |
| 38 | $\hat{\Gamma}^3$ -Secretase Complex Assembly within the Early Secretory Pathway. <i>Journal of Biological Chemistry</i> , 2005, 280, 6471-6478. | 1.6 | 77 |
| 39 | Intramembrane Proteolysis of $\hat{\Gamma}^2$ -Amyloid Precursor Protein by $\hat{\Gamma}^3$ -Secretase Is an Unusually Slow Process. <i>Biophysical Journal</i> , 2015, 108, 1229-1237. | 0.2 | 77 |
| 40 | Endoplasmic reticulum retention of the $\hat{\Gamma}^3$ -secretase complex component Pen2 by Rer1. <i>EMBO Reports</i> , 2007, 8, 743-748. | 2.0 | 74 |
| 41 | Pathological activity of familial Alzheimer's disease-associated mutant presenilin can be executed by six different $\hat{\Gamma}^3$ -secretase complexes. <i>Neurobiology of Disease</i> , 2007, 27, 102-107. | 2.1 | 74 |
| 42 | Purification, Pharmacological Modulation, and Biochemical Characterization of Interactors of Endogenous Human $\hat{\Gamma}^3$ -Secretase. <i>Biochemistry</i> , 2009, 48, 1183-1197. | 1.2 | 65 |
| 43 | $\hat{\Gamma}^2$ -Amyloid Precursor Protein Mutants Respond to $\hat{\Gamma}^3$ -Secretase Modulators. <i>Journal of Biological Chemistry</i> , 2010, 285, 17798-17810. | 1.6 | 64 |
| 44 | Immature nicastrin stabilizes APH $\hat{\Gamma}^1$ independent of PEN $\hat{\Gamma}^2$ and presenilin: identification of nicastrin mutants that selectively interact with APH $\hat{\Gamma}^1$. <i>Journal of Neurochemistry</i> , 2004, 89, 1520-1527. | 2.1 | 60 |
| 45 | Generation and deposition of A $\hat{\Gamma}^{243}$ by the virtually inactive presenilin $\hat{\Gamma}^1$ L435F mutant contradicts the presenilin loss-of-function hypothesis of Alzheimer's disease. <i>EMBO Molecular Medicine</i> , 2016, 8, 458-465. | 3.3 | 60 |
| 46 | Intramembrane Proteolysis by Signal Peptide Peptidases: A Comparative Discussion of GXGD-type Aspartyl Proteases. <i>Journal of Biological Chemistry</i> , 2009, 284, 13975-13979. | 1.6 | 56 |
| 47 | Nicastrin Interacts with $\hat{\Gamma}^3$ -Secretase Complex Components via the N-terminal Part of Its Transmembrane Domain. <i>Journal of Biological Chemistry</i> , 2003, 278, 52519-52523. | 1.6 | 54 |
| 48 | Bepridil and Amiodarone Simultaneously Target the Alzheimer's Disease $\hat{\Gamma}$ - and $\hat{\Gamma}$ -Secretase via Distinct Mechanisms. <i>Journal of Neuroscience</i> , 2010, 30, 8974-8983. | 1.7 | 51 |
| 49 | Homodimerization Protects the Amyloid Precursor Protein C99 Fragment from Cleavage by $\hat{\Gamma}^3$ -Secretase. <i>Biochemistry</i> , 2015, 54, 6149-6152. | 1.2 | 43 |
| 50 | Attenuated A $\hat{\Gamma}^{242}$ Responses to Low Potency $\hat{\Gamma}^3$ -Secretase Modulators Can Be Overcome for Many Pathogenic Presenilin Mutants by Second-generation Compounds. <i>Journal of Biological Chemistry</i> , 2011, 286, 15240-15251. | 1.6 | 42 |
| 51 | Proteolytic Processing of Neuregulin 1 Type III by Three Intramembrane-cleaving Proteases. <i>Journal of Biological Chemistry</i> , 2016, 291, 318-333. | 1.6 | 42 |
| 52 | Uncovering $\hat{\Gamma}$ -Secretase. <i>Current Alzheimer Research</i> , 2004, 1, 175-181. | 0.7 | 40 |
| 53 | Substrate processing in intramembrane proteolysis by $\hat{\Gamma}^3$ -secretase – the role of protein dynamics. <i>Biological Chemistry</i> , 2017, 398, 441-453. | 1.2 | 40 |
| 54 | Foamy Virus Envelope Protein Is a Substrate for Signal Peptide Peptidase-like 3 (SPPL3). <i>Journal of Biological Chemistry</i> , 2012, 287, 43401-43409. | 1.6 | 38 |

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|----|--|-----|-----------|
| 55 | Chemical Cross-linking Provides a Model of the γ -Secretase Complex Subunit Architecture and Evidence for Close Proximity of the C-terminal Fragment of Presenilin with APH-1. <i>Journal of Biological Chemistry</i> , 2008, 283, 34677-34686. | 1.6 | 37 |
| 56 | Modulating Hinge Flexibility in the APP Transmembrane Domain Alters γ -Secretase Cleavage. <i>Biophysical Journal</i> , 2019, 116, 2103-2120. | 0.2 | 34 |
| 57 | The Catalytic Core of γ -Secretase: Presenilin Revisited. <i>Current Alzheimer Research</i> , 2008, 5, 147-157. | 0.7 | 33 |
| 58 | Secretases in Alzheimer's disease: Novel insights into proteolysis of APP and TREM2. <i>Current Opinion in Neurobiology</i> , 2022, 72, 101-110. | 2.0 | 28 |
| 59 | Co-expression of Nicastrin and Presenilin Rescues a Loss of Function Mutant of APH-1. <i>Journal of Biological Chemistry</i> , 2004, 279, 37311-37315. | 1.6 | 25 |
| 60 | $A\beta_{43}$ -producing γ -Secretase 1 γ -Secretase mutants cause altered substrate interactions and respond to γ -Secretase modulation. <i>EMBO Reports</i> , 2020, 21, e47996. | 2.0 | 24 |
| 61 | Loss of PAFAH1B2 Reduces Amyloid- β Generation by Promoting the Degradation of Amyloid Precursor Protein C-Terminal Fragments. <i>Journal of Neuroscience</i> , 2012, 32, 18204-18214. | 1.7 | 23 |
| 62 | Pathogenic $A\beta$ generation in familial Alzheimer's disease: novel mechanistic insights and therapeutic implications. <i>Current Opinion in Neurobiology</i> , 2020, 61, 73-81. | 2.0 | 22 |
| 63 | Nuclear Signaling: A Common Function of Presenilin Substrates?. <i>Journal of Molecular Neuroscience</i> , 2001, 17, 193-198. | 1.1 | 18 |
| 64 | Requirement for small side chain residues within the GxGD motif of presenilin for γ -Secretase substrate cleavage. <i>Journal of Neurochemistry</i> , 2010, 112, 940-950. | 2.1 | 18 |
| 65 | Important functional role of residue x of the presenilin GxGD protease active site motif for γ -Secretase substrate cleavage specificity and substrate selectivity of γ -Secretase. <i>Journal of Neurochemistry</i> , 2013, 125, 144-156. | 2.1 | 18 |
| 66 | An in vivo assay for the identification of target proteases which cleave membrane-associated substrates. <i>FEBS Letters</i> , 1999, 463, 245-249. | 1.3 | 17 |
| 67 | γ -Secretase cleavage of the Alzheimer risk factor γ -TREM2 is determined by its intrinsic structural dynamics. <i>EMBO Journal</i> , 2020, 39, e104247. | 3.5 | 16 |
| 68 | Comparison of Strategies for the Determination of Sterol Sulfates via GC-MS Leading to a Novel Deconjugation-Derivatization Protocol. <i>Molecules</i> , 2019, 24, 2353. | 1.7 | 14 |
| 69 | Substrate recruitment by γ -secretase. <i>Seminars in Cell and Developmental Biology</i> , 2020, 105, 54-63. | 2.3 | 13 |
| 70 | Bexarotene Binds to the Amyloid Precursor Protein Transmembrane Domain, Alters Its α -Helical Conformation, and Inhibits γ -Secretase Nonselectively in Liposomes. <i>ACS Chemical Neuroscience</i> , 2018, 9, 1702-1713. | 1.7 | 11 |
| 71 | Modulation of γ -Secretase Activity by a Carborane-Based Flurbiprofen Analogue. <i>Molecules</i> , 2021, 26, 2843. | 1.7 | 10 |
| 72 | Identification of a rare presenilin 1 single amino acid deletion mutation (F175del) with unusual amyloid- β processing effects. <i>Neurobiology of Aging</i> , 2019, 84, 241.e5-241.e11. | 1.5 | 9 |

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|----|---|-----|-----------|
| 73 | Photo-controlled delivery of very long chain fatty acids to cell membranes and modulation of membrane protein function. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183200. | 1.4 | 8 |
| 74 | Pore-forming scissors? A first structural glimpse of β -secretase. <i>Trends in Biochemical Sciences</i> , 2006, 31, 491-493. | 3.7 | 5 |
| 75 | The Nicastrin ectodomain adopts a highly thermostable structure. <i>Biological Chemistry</i> , 2011, 392, 995-1001. | 1.2 | 4 |
| 76 | Active site geometry stabilization of a presenilin homolog by the lipid bilayer promotes intramembrane proteolysis. <i>ELife</i> , 2022, 11, . | 2.8 | 3 |
| 77 | Effective sample preparation procedure for the analysis of free neutral steroids, free steroid acids and sterol sulfates in different tissues by GC-MS. <i>Journal of Steroid Biochemistry and Molecular Biology</i> , 2021, 211, 105880. | 1.2 | 1 |
| 78 | Understanding intramembrane proteolysis by β -secretase. <i>Seminars in Cell and Developmental Biology</i> , 2020, 105, 1-2. | 2.3 | 0 |