Hans-Ulrich Demuth

List of Publications by Year in descending order

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102 papers 4,174 citations

35 h-index 62 g-index

114 all docs

114 docs citations

114 times ranked 3428 citing authors

#	Article	IF	CITATIONS
1	Mammalian-like type II glutaminyl cyclases in Porphyromonas gingivalis and other oral pathogenic bacteria as targets for treatment of periodontitis. Journal of Biological Chemistry, 2021, 296, 100263.	1.6	9
2	Structure and Dynamics of Meprin \hat{l}^2 in Complex with a Hydroxamate-Based Inhibitor. International Journal of Molecular Sciences, 2021, 22, 5651.	1.8	7
3	Targeting isoaspartate-modified Aβ rescues behavioral deficits in transgenic mice with Alzheimer's disease-like pathology. Alzheimer's Research and Therapy, 2020, 12, 149.	3.0	10
4	Hydrazides Are Potent Transition-State Analogues for Glutaminyl Cyclase Implicated in the Pathogenesis of Alzheimer's Disease. Biochemistry, 2020, 59, 2585-2591.	1.2	11
5	Amyloid-Beta Peptides Trigger Aggregation of Alpha-Synuclein In Vitro. Molecules, 2020, 25, 580.	1.7	53
6	Endogenous mouse huntingtin is highly abundant in cranial nerve nuclei, co-aggregates to Abeta plaques and is induced in reactive astrocytes in a transgenic mouse model of Alzheimer's disease. Acta Neuropathologica Communications, 2019, 7, 79.	2.4	5
7	P4â€474: CHARACTERIZATION OF A NOVEL HUMANIZED WILDâ€TYPE TAU EXPRESSING MOUSE MODEL IN HIGHâ€AMYLOID BACKGROUND OF 5XFAD MICE. Alzheimer's and Dementia, 2019, 15, P1493.	0.4	O
8	QUINT: Workflow for Quantification and Spatial Analysis of Features in Histological Images From Rodent Brain. Frontiers in Neuroinformatics, 2019, 13, 75.	1.3	51
9	Concerted action of dipeptidyl peptidase IV and glutaminyl cyclase results in formation of pyroglutamate-modified amyloid peptides inÂvitro. Neurochemistry International, 2018, 113, 112-119.	1.9	18
10	Aβ oligomer eliminating compounds interfere successfully with pEAβ(3–42) induced motor neurodegenerative phenotype in transgenic mice. Neuropeptides, 2018, 67, 27-35.	0.9	9
11	P2â€056: TARGETING ISOASPARTATEâ€MODIFIED Aβ: A DIFFERENTIAL APPROACH OF PASSIVE IMMUNOTHERAPY Alzheimer's and Dementia, 2018, 14, P687.	·0.4	O
12	O3â€01â€01: A NEW MOUSE MODEL WITH HUMANIZED WILDâ€TYPE TAU EXPRESSION. Alzheimer's and Demen 2018, 14, P1008.	ıtia 0.4	1
13	Dipeptidyl-Peptidase Activity of Meprin \hat{l}^2 Links N-truncation of $A\hat{l}^2$ with Glutaminyl Cyclase-Catalyzed pGlu- $A\hat{l}^2$ Formation. Journal of Alzheimer's Disease, 2018, 66, 359-375.	1.2	20
14	Kallikreinâ€related peptidases are activators of the CC chemokine CCL14. European Journal of Immunology, 2018, 48, 1592-1594.	1.6	4
15	Comprehensive Characterization of the Pyroglutamate Amyloid- \hat{l}^2 Induced Motor Neurodegenerative Phenotype of TBA2.1 Mice. Journal of Alzheimer's Disease, 2018, 63, 115-130.	1.2	10
16	Immunohistochemical Evidence from APP-Transgenic Mice for Glutaminyl Cyclase as Drug Target to Diminish pE-Abeta Formation. Molecules, 2018, 23, 924.	1.7	14
17	Continuous assays for meprin alpha and beta using prolyl tripeptidyl aminopeptidase (PtP) from Porphyromonas gingivalis. Analytical Biochemistry, 2018, 559, 11-16.	1.1	7
18	Recent progress in translational research on neurovascular and neurodegenerative disorders. Restorative Neurology and Neuroscience, 2017, 35, 87-103.	0.4	16

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19	Posttranslational modification impact on the mechanism by which amyloidâ€Î² induces synaptic dysfunction. EMBO Reports, 2017, 18, 962-981.	2.0	50
20	Glutaminyl Cyclase Inhibitor PQ912 Improves Cognition in Mouse Models of Alzheimer's Disease—Studies on Relation to Effective Target Occupancy. Journal of Pharmacology and Experimental Therapeutics, 2017, 362, 119-130.	1.3	50
21	Structural and functional analyses of pyroglutamate-amyloid- \hat{l}^2 -specific antibodies as a basis for Alzheimer immunotherapy. Journal of Biological Chemistry, 2017, 292, 12713-12724.	1.6	24
22	[P4–457]: Nâ€TRUNCATED AND PYROGLUTAMATEâ€MODIFIED Aβ ACCELERATES AGGREGATION OF αâ€SYNI <i>IN VITRO</i> . Alzheimer's and Dementia, 2017, 13, P1505.	JCLEIN 0.4	0
23	N-terminal pyroglutamate formation in CX3CL1 is essential for its full biologic activity. Bioscience Reports, 2017, 37, .	1.1	25
24	Characterizing Aging, Mild Cognitive Impairment, and Dementia with Blood-Based Biomarkers and Neuropsychology. Journal of Alzheimer's Disease, 2016, 50, 111-126.	1.2	18
25	Natural Products from Microalgae with Potential against Alzheimer's Disease: Sulfolipids Are Potent Glutaminyl Cyclase Inhibitors. Marine Drugs, 2016, 14, 203.	2.2	50
26	Neuropeptide Y (<scp>NPY</scp>) in cerebrospinal fluid from patients with Huntington's Disease: increased <scp>NPY</scp> levels and differential degradation of the <scp>NPY</scp> _{1–30} fragment. Journal of Neurochemistry, 2016, 137, 820-837.	2.1	17
27	VerstÃrkte Fibrillenâ€Fragmentierung Nâ€terminal verkÃ⅓rzter, Pyroglutamatâ€modifizierter Aβâ€Peptide. Angewandte Chemie, 2016, 128, 5165-5168.	1.6	6
28	Enhanced Fibril Fragmentation of N‶erminally Truncated and Pyroglutamylâ€Modified Aβ Peptides. Angewandte Chemie - International Edition, 2016, 55, 5081-5084.	7.2	34
29	P4â€298: Meprin β is Associated with Formation of Pyroglutamateâ€Modified Aβ Peptides. Alzheimer's and Dementia, 2016, 12, P1147.	0.4	0
30	Inhibition of CDK9 as a therapeutic strategy for inflammatory arthritis. Scientific Reports, 2016, 6, 31441.	1.6	25
31	The pyroglutamate modification of toxic $A\hat{l}^2$ resulted new therapeutic aproaches: inhibitors of glutaminyl cyclase and highly specific antibodies $\hat{a}\in$ a status report. Neurobiology of Aging, 2016, 39, 518-S19.	1.5	1
32	11th German Conference on Chemoinformatics (GCC 2015). Journal of Cheminformatics, 2016, 8, 18.	2.8	1
33	IsoQC (QPCTL) knock-out mice suggest differential substrate conversion by glutaminyl cyclase isoenzymes. Biological Chemistry, 2016, 397, 45-55.	1.2	23
34	Identifying neuropeptide Y (NPY) as the main stress-related substrate of dipeptidyl peptidase 4 (DPP4) in blood circulation. Neuropeptides, 2016, 57, 21-34.	0.9	35
35	QIAD assay for quantitating a compound $\hat{a} \in \mathbb{N}$ s efficacy in elimination of toxic $\hat{Al^2}$ oligomers. Scientific Reports, 2015, 5, 13222.	1.6	39
36	Proteolytic degradation of neuropeptide Y (<scp>NPY</scp>) from head to toe: Identification of novel <scp>NPY</scp> â€cleaving peptidases and potential drug interactions in <scp>CNS</scp> and Periphery. Journal of Neurochemistry, 2015, 135, 1019-1037.	2.1	28

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37	Purification and Characterization of Recombinant N-Terminally Pyroglutamate-Modified Amyloid- \hat{l}^2 Variants and Structural Analysis by Solution NMR Spectroscopy. PLoS ONE, 2015, 10, e0139710.	1.1	21
38	Structural Analysis and Aggregation Propensity of Pyroglutamate $A\hat{l}^2$ (3-40) in Aqueous Trifluoroethanol. PLoS ONE, 2015, 10, e0143647.	1.1	27
39	The Proteolytic Profile of Human Cancer Procoagulant Suggests That It Promotes Cancer Metastasis at the Level of Activation Rather Than Degradation. Protein Journal, 2015, 34, 338-348.	0.7	6
40	Isoglutaminyl cyclase contributes to CCL2-driven neuroinflammation in Alzheimer's disease. Acta Neuropathologica, 2015, 129, 565-583.	3.9	38
41	Phosphate ions and glutaminyl cyclases catalyze the cyclization of glutaminyl residues by facilitating synchronized proton transfers. Bioorganic Chemistry, 2015, 60, 98-101.	2.0	13
42	An anti-pyroglutamate-3 ${\hat A}^2$ vaccine reduces plaques and improves cognition in APPswe/PS1 $\hat i$ "E9 mice. Neurobiology of Aging, 2015, 36, 3187-3199.	1.5	45
43	Identification of thyrotropin-releasing hormone as hippocampal glutaminyl cyclase substrate in neurons and reactive astrocytes. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2015, 1852, 146-155.	1.8	9
44	A non-canonical function of eukaryotic elongation factor 1A1: Regulation of interleukin-6 expression. Biochimica Et Biophysica Acta - Molecular Cell Research, 2014, 1843, 965-975.	1.9	23
45	Mouse strain and brain regionâ€specific expression of the glutaminyl cyclases QC and isoQC. International Journal of Developmental Neuroscience, 2014, 36, 64-73.	0.7	13
46	Glutaminyl Cyclase in Human Cortex: Correlation with (pGlu)-Amyloid-β Load and Cognitive Decline in Alzheimer's Disease, 2014, 39, 385-400.	1.2	90
47	Pyroglutamate-Amyloid- \hat{l}^2 and Glutaminyl Cyclase Are Colocalized with Amyloid- \hat{l}^2 in Secretory Vesicles and Undergo Activity-Dependent, Regulated Secretion. Neurodegenerative Diseases, 2014, 14, 85-97.	0.8	9
48	O2-12-05: ALTERNATIVE BETA-SECRETASE PROCESSING GENERATES N-TERMINALLY TRUNCATED ABETA PEPTIDES IN MAMMALIAN CELLS. , 2014, 10, P192-P193.		0
49	P3-128: COMBINATION OF BLOOD-BASED BIOMARKERS AND NEUROPSYCHOLOGICAL ASSESSMENT ENABLES RELIABLE CLASSIFICATION OF TESTED SUBJECTS BY CONTROLS: MILD COGNITIVE IMPAIRMENT AND ALZHEIMER'S DISEASE., 2014, 10, P675-P675.		O
50	P3-041: BRAIN DEPOSITION OF PYROGLUTAMATE AÎ ² IN AÎ ² AMYLOIDOSIS. , 2014, 10, P643-P643.		0
51	O1-10-02: TOXIC PGLU-ABETA IS ENHANCED AND GLUTAMINYL CYCLASE (QC) UP-REGULATED EARLY IN ALZHEIMER'S DISEASE (AD): INHIBITORS OF QC BLOCKING PGLU-ABETA FORMATION ARE IN CLINICAL DEVELOPMENT., 2014, 10, P149-P149.		1
52	P1-077: EVIDENCE FOR INVOLVEMENT OF MEPRIN B IN FORMATION OF N-TRUNCATED AND PYROGLUTAMATE -MODIFIED (PGLU) ABETA. , 2014, 10, P331-P331.		O
53	Structure–Activity Relationships of Benzimidazole-Based Glutaminyl Cyclase Inhibitors Featuring a Heteroaryl Scaffold. Journal of Medicinal Chemistry, 2013, 56, 6613-6625.	2.9	54
54	Glutaminyl cyclase-mediated toxicity of pyroglutamate-beta amyloid induces striatal neurodegeneration. BMC Neuroscience, 2013, 14, 108.	0.8	22

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55	Inhibition of Glutaminyl Cyclases alleviates <scp>CCL</scp> 2â€mediated inflammation of nonâ€alcoholic fatty liver disease in mice. International Journal of Experimental Pathology, 2013, 94, 217-225.	0.6	26
56	O2-07-02: Characterization of double transgenic mice, APPSLxhQC, exhibiting enhanced pyroGlu3-beta-amyloid formation to evaluate efficacy of glutaminyl cyclase (QC) inhibitors., 2013, 9, P328-P328.		O
57	Pyroglutamate-3 Amyloid-β Deposition in the Brains of Humans, Non-Human Primates, Canines, and Alzheimer Disease–Like Transgenic Mouse Models. American Journal of Pathology, 2013, 183, 369-381.	1.9	102
58	Glutaminyl Cyclases as Novel Targets for the Treatment of Septic Arthritis. Journal of Infectious Diseases, 2013, 207, 768-777.	1.9	15
59	Structure of glutaminyl cyclase from <i>Drosophila melanogaster</i> i>in space group <i>I</i> 4. Acta Crystallographica Section F: Structural Biology Communications, 2013, 69, 358-361.	0.7	2
60	Role of glutaminyl cyclases in thyroid carcinomas. Endocrine-Related Cancer, 2013, 20, 79-90.	1.6	21
61	Glutaminyl Cyclases. , 2013, , 1736-1742.		0
62	Proteases in the Nervous System. , 2013, , 319-371.		4
63	Pyroglutamate Amyloid \hat{I}^2 (\hat{A}^2) Aggravates Behavioral Deficits in Transgenic Amyloid Mouse Model for Alzheimer Disease. Journal of Biological Chemistry, 2012, 287, 8154-8162.	1.6	71
64	Passive Immunization against Pyroglutamate-3 Amyloid- \hat{l}^2 Reduces Plaque Burden in Alzheimer-Like Transgenic Mice: A Pilot Study. Neurodegenerative Diseases, 2012, 10, 265-270.	0.8	63
65	Structural analysis of the pyroglutamateâ€modified isoform of the Alzheimer's diseaseâ€related amyloidâ€Î² using NMR spectroscopy. Journal of Peptide Science, 2012, 18, 691-695.	0.8	20
66	Crystal Structures of Glutaminyl Cyclases (QCs) from <i>Drosophila melanogaster</i> Reveal Active Site Conservation between Insect and Mammalian QCs. Biochemistry, 2012, 51, 7383-7392.	1.2	12
67	No improvement after chronic ibuprofen treatment in the 5XFAD mouse model of Alzheimer's disease. Neurobiology of Aging, 2012, 33, 833.e39-833.e50.	1.5	32
68	Probing Secondary Glutaminyl Cyclase (QC) Inhibitor Interactions Applying an in silicoâ€Modeling/Siteâ€Directed Mutagenesis Approach: Implications for Drug Development. Chemical Biology and Drug Design, 2012, 80, 937-946.	1.5	15
69	Nâ€Terminal pyroglutamate formation of Aβ38 and Aβ40 enforces oligomer formation and potency to disrupt hippocampal longâ€term potentiation. Journal of Neurochemistry, 2012, 121, 774-784.	2.1	76
70	Prion-like behaviour and tau-dependent cytotoxicity of pyroglutamylated amyloid-Î ² . Nature, 2012, 485, 651-655.	13.7	369
71	Glutaminyl Cyclase Knock-out Mice Exhibit Slight Hypothyroidism but No Hypogonadism. Journal of Biological Chemistry, 2011, 286, 14199-14208.	1.6	30
72	Structures of Glycosylated Mammalian Glutaminyl Cyclases Reveal Conformational Variability near the Active Center. Biochemistry, 2011, 50, 6280-6288.	1,2	27

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73	Glutaminyl cyclase contributes to the formation of focal and diffuse pyroglutamate (pGlu)- $\hat{Al^2}$ deposits in hippocampus via distinct cellular mechanisms. Acta Neuropathologica, 2011, 121, 705-719.	3.9	52
74	Heteroarylketones inhibit astroglial interleukin-6 expression via a STAT3/NF- $\hat{\mathbb{P}}$ B signaling pathway. Journal of Neuroinflammation, 2011, 8, 86.	3.1	11
75	The isoenzyme of glutaminyl cyclase is an important regulator of monocyte infiltration under inflammatory conditions. EMBO Molecular Medicine, 2011, 3, 545-558.	3.3	78
76	Highlight: Dipeptidyl peptidase 4 and related proteins. Biological Chemistry, 2011, 392, 151-2.	1.2	0
77	Isolation of dipeptidyl peptidase IV (DP 4) isoforms from porcine kidney by preparative isoelectric focusing to improve crystallization. Biological Chemistry, 2011, 392, 665-77.	1.2	5
78	Overexpression of Glutaminyl Cyclase, the Enzyme Responsible for Pyroglutamate $A\hat{l}^2$ Formation, Induces Behavioral Deficits, and Glutaminyl Cyclase Knock-out Rescues the Behavioral Phenotype in 5XFAD Mice. Journal of Biological Chemistry, 2011, 286, 4454-4460.	1.6	79
79	Selective inhibition of dipeptidyl peptidase 4 by targeting a substrate-specific secondary binding site. Biological Chemistry, 2011, 392, 223-31.	1.2	22
80	Selective Hippocampal Neurodegeneration in Transgenic Mice Expressing Small Amounts of Truncated Aβ Is Induced by Pyroglutamate–Aβ Formation. Journal of Neuroscience, 2011, 31, 12790-12801.	1.7	90
81	Distinct glutaminyl cyclase expression in Edinger–Westphal nucleus, locus coeruleus and nucleus basalis Meynert contributes to pGlu-Al̂² pathology in Alzheimer's disease. Acta Neuropathologica, 2010, 120, 195-207.	3.9	29
82	Pathological Hallmarks, Clinical Parallels, and Value for Drug Testing in Alzheimer's Disease of the APP[V717I] London Transgenic Mouse Model. International Journal of Alzheimer's Disease, 2010, 2010, 1-9.	1.1	20
83	Kinetic and structural characterization of bacterial glutaminyl cyclases from Zymomonas mobilis and Myxococcus xanthus. Biological Chemistry, 2010, 391, 1419-28.	1.2	14
84	Intraneuronal pyroglutamate-Abeta 3–42 triggers neurodegeneration and lethal neurological deficits in a transgenic mouse model. Acta Neuropathologica, 2009, 118, 487-496.	3.9	151
85	Mammalian glutaminyl cyclases and their isoenzymes have identical enzymatic characteristics. FEBS Journal, 2009, 276, 6522-6536.	2.2	37
86	Glutaminyl Cyclases Display Significant Catalytic Proficiency for Glutamyl Substrates. Biochemistry, 2009, 48, 11831-11833.	1.2	38
87	Pyroglutamate Formation Influences Solubility and Amyloidogenicity of Amyloid Peptides. Biochemistry, 2009, 48, 7072-7078.	1.2	171
88	Developmental expression and subcellular localization of glutaminyl cyclase in mouse brain. International Journal of Developmental Neuroscience, 2009, 27, 825-835.	0.7	31
89	Inhibitors for Human Glutaminyl Cyclase by Structure Based Design and Bioisosteric Replacement. Journal of Medicinal Chemistry, 2009, 52, 7069-7080.	2.9	57
90	Glutaminyl cyclase inhibition attenuates pyroglutamate Aβ and Alzheimer's disease–like pathology. Nature Medicine, 2008, 14, 1106-1111.	15.2	316

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91	Inhibition of glutaminyl cyclase prevents pGluâ \in A \hat{l}^2 formation after intracortical/hippocampal microinjection <i>in vivo</i> /i>/ <i>in situ</i> . Journal of Neurochemistry, 2008, 106, 1225-1236.	2.1	67
92	Isolation of an Isoenzyme of Human Glutaminyl Cyclase: Retention in the Golgi Complex Suggests Involvement in the Protein Maturation Machinery. Journal of Molecular Biology, 2008, 379, 966-980.	2.0	62
93	Amyloidogenic Processing of Amyloid Precursor Protein: Evidence of a Pivotal Role of Glutaminyl Cyclase in Generation of Pyroglutamate-Modified Amyloid-β. Biochemistry, 2008, 47, 7405-7413.	1.2	100
94	Isolation and Characterization of Glutaminyl Cyclases from Drosophila:  Evidence for Enzyme Forms with Different Subcellular Localization. Biochemistry, 2007, 46, 10921-10930.	1.2	22
95	The First Potent Inhibitors for Human Glutaminyl Cyclase:Â Synthesis and Structureâ^'Activity Relationship. Journal of Medicinal Chemistry, 2006, 49, 664-677.	2.9	81
96	On the Seeding and Oligomerization of pGlu-Amyloid Peptides (in vitro). Biochemistry, 2006, 45, 12393-12399.	1.2	238
97	Inhibition of glutaminyl cyclase alters pyroglutamate formation in mammalian cells. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2006, 1764, 1618-1625.	1.1	73
98	Glutaminyl cyclases unfold glutamyl cyclase activity under mild acid conditions. FEBS Letters, 2004, 563, 191-196.	1.3	155
99	Identification of Human Glutaminyl Cyclase as a Metalloenzyme. Journal of Biological Chemistry, 2003, 278, 49773-49779.	1.6	78
100	Substrate Specificity of Glutaminyl Cyclases from Plants and Animals. Biological Chemistry, 2003, 384, 1583-92.	1.2	59
101	Heterologous Expression and Characterization of Human Glutaminyl Cyclase:Â Evidence for a Disulfide Bond with Importance for Catalytic Activity. Biochemistry, 2002, 41, 10849-10857.	1.2	58
102	Continuous Spectrometric Assays for Glutaminyl Cyclase Activity. Analytical Biochemistry, 2002, 303, 49-56.	1.1	50