Wei-Jen Tang

List of Publications by Year
in descending order

112 papers	7,182 citations	44042 48 h-index	58549 82 g-index
115 all docs	115 docs citations	115 times ranked	5938 citing authors

#	Article	IF	Citations
1	Structural basis for the mechanisms of human presequence protease conformational switch and substrate recognition. Nature Communications, 2022, 13, 1833.	5.8	4
2	Degradation of Alzheimerâ€™s Amyloid-Î² by a Catalytically Inactive Insulin-Degrading Enzyme. Journal of Molecular Biology, 2021, 433, 166993.	2.0	27
3	Structural analysis of Mycobacterium tuberculosis M13 metalloprotease Zmp1 open states. Structure, 2021, 29, 709-720.e3.	1.6	3
4	Pseudomonas aeruginosa exoenzyme Y directly bundles actin filaments. Journal of Biological Chemistry, 2020, 295, 3506-3517.	1.6	7
5	Reinvestigating the synthesis and efficacy of small benzimidazole derivatives as presequence protease enhancers. European Journal of Medicinal Chemistry, 2019, 184, 111746.	2.6	5
6	Identification of ebselen as a potent inhibitor of insulin degrading enzyme by a drug repurposing screening. European Journal of Medicinal Chemistry, 2019, 179, 557-566.	2.6	13
7	Rapid Discovery and Characterization of Synthetic Neutralizing Antibodies against Anthrax Edema Toxin. Biochemistry, 2019, 58, 2996-3004.	1.2	4
8	Locking the Elbow: Improved Antibody Fab Fragments as Chaperones for Structure Determination. Journal of Molecular Biology, 2018, 430, 337-347.	2.0	50
9	Ensemble cryoEM elucidates the mechanism of insulin capture and degradation by human insulin degrading enzyme. ELife, 2018, 7, .	2.8	45
10	Catalytic Mechanism of Amyloid-Î² Peptide Degradation by Insulin Degrading Enzyme: Insights from Quantum Mechanics and Molecular Mechanics Style MÃ¸llerâ€“Plesset Second Order Perturbation Theory Calculation. Journal of Chemical Information and Modeling, 2018, 58, 1926-1934.	2.5	9
11	Structural basis for oligomerization and glycosaminoglycan binding of CCL5 and CCL3. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 5000-5005.	3.3	72
12	Targeting Insulin-Degrading Enzyme to Treat Type 2 Diabetes Mellitus. Trends in Endocrinology and Metabolism, 2016, 27, 24-34.	3.1	82
13	Different Roles of N-Terminal and C-Terminal Domains in Calmodulin for Activation of Bacillus anthracis Edema Factor. Toxins, 2015, 7, 2598-2614.	1.5	3
14	Structures of Human CCL18, CCL3, and CCL4 Reveal Molecular Determinants for Quaternary Structures and Sensitivity to Insulin-Degrading Enzyme. Journal of Molecular Biology, 2015, 427, 1345-1358.	2.0	21
15	Catalytic site inhibition of insulin-degrading enzyme by a small molecule induces glucose intolerance in mice. Nature Communications, 2015, 6, 8250.	5.8	71
16	Structureâ€“activity relationships of imidazole-derived 2-[N-carbamoylmethyl-alkylamino]acetic acids, dual binders of human insulin-degrading enzyme. European Journal of Medicinal Chemistry, 2015, 90, 547-567.	2.6	24
17	Imidazole-derived 2-[N-carbamoylmethyl-alkylamino]acetic acids, substrate-dependent modulators of insulin-degrading enzyme in amyloid-Î² hydrolysis. European Journal of Medicinal Chemistry, 2014, 79, 184-193.	2.6	27
18	Anti-diabetic activity of insulin-degrading enzyme inhibitors mediated by multiple hormones. Nature, 2014, 511, 94-98.	13.7	207

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19	Molecular Basis of Substrate Recognition and Degradation by Human Presequence Protease. Structure, 2014, 22, 996-1007.	1.6	40
20	Daughterless homodimer synergizes with Eyeless to induce Atonal expression and retinal neuron differentiation. Developmental Biology, 2014, 392, 256-265.	0.9	16
21	Conformational states and recognition of amyloidogenic peptides of human insulin-degrading enzyme. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13827-13832.	3.3	52
22	Modulation of the CXC Chemokine Receptor 4 Agonist Activity of Ubiquitin through C-Terminal Protein Modification. Biochemistry, 2013, 52, 4184-4192.	1.2	21
23	Empirical Valence Bond Simulations of the Chemical Mechanism of ATP to cAMP Conversion by Anthrax Edema Factor. Biochemistry, 2013, 52, 2672-2682.	1.2	16
24	Nucleotidyl Cyclase Activity of Particulate Guanylyl Cyclase A: Comparison with Particulate Guanylyl Cyclases E and F, Soluble Guanylyl Cyclase and Bacterial Adenylyl Cyclases Cyaa and Edema Factor. PLoS ONE, 2013, 8, e70223.	1.1	34
25	Interactions of Bordetella pertussis adenylyl cyclase toxin CyaA with calmodulin mutants and calmodulin antagonists: Comparison with membranous adenylyl cyclase I. Biochemical Pharmacology, 2012, 83, 839-848.	2.0	9
26	Inhibition of the adenylyl cyclase toxin, edema factor, from Bacillus anthracis by a series of 18 mono- and bis-(M)ANT-substituted nucleoside 5â€²-triphosphates. Naunyn-Schmiedeberg's Archives of Pharmacology, 2012, 385, 57-68.	1.4	12
27	Insulin-degrading Enzyme Modulates the Natriuretic Peptide-mediated Signaling Response. Journal of Biological Chemistry, 2011, 286, 4670-4679.	1.6	65
28	Noninvasive Imaging Technologies Reveal Edema Toxin as a Key Virulence Factor in Anthrax. American Journal of Pathology, 2011, 178, 2523-2535.	1.9	52
29	Ubiquitin Is a Novel Substrate for Human Insulin-Degrading Enzyme. Journal of Molecular Biology, 2011, 406, 454-466.	2.0	31
30	Bis-Halogen-Anthraniloyl-Substituted Nucleoside 5â€²-Triphosphates as Potent and Selective Inhibitors of Bordetella pertussis Adenylyl Cyclase Toxin. Journal of Pharmacology and Experimental Therapeutics, 2011, 336, 104-115.	1.3	23
31	Previous Exposure to Î”9-Tetrahydrocannibinol Enhances Locomotor Responding to but Not Self-Administration of Amphetamine. Journal of Pharmacology and Experimental Therapeutics, 2011, 337, 724-733.	1.3	18
32	Structural Determinants of Ubiquitin-CXC Chemokine Receptor 4 Interaction. Journal of Biological Chemistry, 2011, 286, 44145-44152.	1.6	40
33	Polymerization of MIP-1 chemokine (CCL3 and CCL4) and clearance of MIP-1 by insulin-degrading enzyme. EMBO Journal, 2010, 29, 3952-3966.	3.5	129
34	Designed Inhibitors of Insulin-Degrading Enzyme Regulate the Catabolism and Activity of Insulin. PLoS ONE, 2010, 5, e10504.	1.1	91
35	Use of allostery to identify inhibitors of calmodulin-induced activation of <i>Bacillus anthracis</i> edema factor. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11277-11282.	3.3	65
36	Contributions of Edema Factor and Protective Antigen to the Induction of Protective Immunity by <i>Bacillus anthracis</i> Edema Toxin as an Intranasal Adjuvant. Journal of Immunology, 2010, 185, 5943-5952.	0.4	18

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37	Comparison of Three Anthrax Toxin Neutralization Assays. Vaccine Journal, 2010, 17, 895-903.	3.2	26
38	Cytidylyl and Uridylyl Cyclase Activity of <i>Bacillus anthracis</i> Edema Factor and <i>Bordetella pertussis</i> CyaA. Biochemistry, 2010, 49, 5494-5503.	1.2	59
39	Molecular Basis for the Recognition and Cleavages of IGF-II, TGF-Î±, and Amylin by Human Insulin-Degrading Enzyme. Journal of Molecular Biology, 2010, 395, 430-443.	2.0	72
40	The role of anthrolysin O in gut epithelial barrier disruption during Bacillus anthracis infection. Biochemical and Biophysical Research Communications, 2010, 394, 254-259.	1.0	29
41	Structural changes in intermediate filament networks alter the activity of insulinâ€degrading enzyme. FASEB Journal, 2009, 23, 3734-3742.	0.2	15
42	Molecular Basis of Catalytic Chamber-assisted Unfolding and Cleavage of Human Insulin by Human Insulin-degrading Enzyme. Journal of Biological Chemistry, 2009, 284, 14177-14188.	1.6	69
43	<i>Bacillus anthracis</i>Edema Toxin Impairs Neutrophil Actin-Based Motility. Infection and Immunity, 2009, 77, 2455-2464.	1.0	36
44	Protective Role of Cys-178 against the Inactivation and Oligomerization of Human Insulin-degrading Enzyme by Oxidation and Nitrosylation. Journal of Biological Chemistry, 2009, 284, 34005-34018.	1.6	36
45	Molecular Analysis of the Interaction of Anthrax Adenylyl Cyclase Toxin, Edema Factor, with 2â€²(3â€²)-<i>O</i>-(<i>N</i>-(methyl)anthraniloyl)-Substituted Purine and Pyrimidine Nucleotides. Molecular Pharmacology, 2009, 75, 693-703.	1.0	36
46	The Case for Developing Consensus Standards for Research in Microbial Pathogenesis: <i>Bacillus anthracis</i> Toxins as an Example. Infection and Immunity, 2009, 77, 4182-4186.	1.0	3
47	Cellular Functions and X-ray Structure of Anthrolysin O, a Cholesterol-dependent Cytolysin Secreted by Bacillus anthracis. Journal of Biological Chemistry, 2009, 284, 14645-14656.	1.6	86
48	Distinct interactions of 2â€²- and 3â€²-O-(N-methyl)anthraniloyl-isomers of ATP and GTP with the adenylyl cyclase toxin of Bacillus anthracis, edema factor. Biochemical Pharmacology, 2009, 78, 224-230.	2.0	11
49	Crystal structures of catalytic and regulatory subunits of rat protein kinase CK2. Science Bulletin, 2009, 54, 220-226.	4.3	3
50	The adenylyl cyclase activity of anthrax edema factor. Molecular Aspects of Medicine, 2009, 30, 423-430.	2.7	87
51	Amyloid Î²-degrading cryptidases: insulin degrading enzyme, presequence peptidase, and neprilysin. Cellular and Molecular Life Sciences, 2008, 65, 2574-2585.	2.4	153
52	A fluorimetric assay for real-time monitoring of adenylyl cyclase activity based on terbium norfloxacin. Analytical Biochemistry, 2008, 381, 86-93.	1.1	29
53	Spatial localization of bacteria controls coagulation of human blood by 'quorum acting'. Nature Chemical Biology, 2008, 4, 742-750.	3.9	95
54	Anthrax toxin-induced shock in rats is associated with pulmonary edema and hemorrhage. Microbial Pathogenesis, 2008, 44, 467-472.	1.3	53

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55	Molecular Bases for the Recognition of Short Peptide Substrates and Cysteine-Directed Modifications of Human Insulin-Degrading Enzyme. Biochemistry, 2008, 47, 12822-12834.	1.2	73
56	Protein-Protein Docking and Analysis Reveal That Two Homologous Bacterial Adenylyl Cyclase Toxins Interact with Calmodulin Differently. Journal of Biological Chemistry, 2008, 283, 23836-23845.	1.6	27
57	Immunohistochemical evidence of ubiquitous distribution of the metalloendoprotease insulin-degrading enzyme (IDE; insulysin) in human non-malignant tissues and tumor cell lines. Biological Chemistry, 2008, 389, 1441-1445.	1.2	7
58	Antiinflammatory cAMP signaling and cell migration genes co-opted by the anthrax bacillus. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6150-6155.	3.3	60
59	Expression of metalloprotease insulin-degrading enzyme insulysin in normal and malignant human tissues. International Journal of Molecular Medicine, 2008, 22, 421-31.	1.8	20
60	Anthrax Edema Toxin Inhibits Endothelial Cell Chemotaxis via Epac and Rap1. Journal of Biological Chemistry, 2007, 282, 19781-19787.	1.6	59
61	Molecular Analysis of the Interaction of Bordetella pertussis Adenylyl Cyclase with Fluorescent Nucleotides. Molecular Pharmacology, 2007, 72, 526-535.	1.0	37
62	Anthrax Edema Toxin Sensitizes DBA/2J Mice to Lethal Toxin. Infection and Immunity, 2007, 75, 2120-2125.	1.0	30
63	The Amino Terminus of Varicella-Zoster Virus (VZV) Glycoprotein E Is Required for Binding to Insulin-Degrading Enzyme, a VZV Receptor. Journal of Virology, 2007, 81, 8525-8532.	1.5	35
64	Structure of Substrate-free Human Insulin-degrading Enzyme (IDE) and Biophysical Analysis of ATP-induced Conformational Switch of IDE. Journal of Biological Chemistry, 2007, 282, 25453-25463.	1.6	108
65	Insights from Atomic-Resolution X-Ray Structures of Chemically Synthesized HIV-1 Protease in Complex with Inhibitors. Journal of Molecular Biology, 2007, 373, 573-586.	2.0	23
66	A 1.3-Ã… Structure of Zinc-bound N-terminal Domain of Calmodulin Elucidates Potential Early Ion-binding Step. Journal of Molecular Biology, 2007, 374, 517-527.	2.0	22
67	Modular Total Chemical Synthesis of a Human Immunodeficiency Virus Type 1 Protease. Journal of the American Chemical Society, 2007, 129, 11480-11490.	6.6	79
68	Anthrax Toxins Induce Shock in Rats by Depressed Cardiac Ventricular Function. PLoS ONE, 2007, 2, e466.	1.1	58
69	Lethal and edema toxins of anthrax induce distinct hemodynamic dysfunction. Frontiers in Bioscience - Landmark, 2007, 12, 4670.	3.0	34
70	The C-terminal domain of human insulin degrading enzyme is required for dimerization and substrate recognition. Biochemical and Biophysical Research Communications, 2006, 343, 1032-1037.	1.0	43
71	Structures of human insulin-degrading enzyme reveal a new substrate recognition mechanism. Nature, 2006, 443, 870-874.	13.7	315
72	Calcium-independent calmodulin binding and two-metalâ€"ion catalytic mechanism of anthrax edema factor. EMBO Journal, 2005, 24, 929-941.	3.5	127

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73	Structural basis for the interaction of Bordetella pertussis adenylyl cyclase toxin with calmodulin. EMBO Journal, 2005, 24, 3190-3201.	3.5	127
74	Anthrax toxins suppress T lymphocyte activation by disrupting antigen receptor signaling. Journal of Experimental Medicine, 2005, 201, 325-331.	4.2	152
75	Anthrax Edema Toxin Cooperates with Lethal Toxin to Impair Cytokine Secretion during Infection of Dendritic Cells. Journal of Immunology, 2005, 174, 4934-4941.	0.4	136
76	Phosphorylation of FADD at Serine 194 by CKIÎ± Regulates Its Nonapoptotic Activities. Molecular Cell, 2005, 19, 321-332.	4.5	130
77	Anthrax edema factor potency depends on mode of cell entry. Biochemical and Biophysical Research Communications, 2005, 335, 850-857.	1.0	20
78	Bacillus anthracis Edema Toxin Causes Extensive Tissue Lesions and Rapid Lethality in Mice. American Journal of Pathology, 2005, 167, 1309-1320.	1.9	172
79	Real-time Analysis of Ternary Complex on Particles. Journal of Biological Chemistry, 2004, 279, 13514-13521.	1.6	28
80	Structural and Kinetic Analyses of the Interaction of Anthrax Adenylyl Cyclase Toxin with Reaction Products cAMP and Pyrophosphate. Journal of Biological Chemistry, 2004, 279, 29427-29435.	1.6	52
81	Selective inhibition of anthrax edema factor by adefovir, a drug for chronic hepatitis B virus infection. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 3242-3247.	3.3	109
82	Chemical screening by mass spectrometry to identify inhibitors of anthrax lethal factor. Nature Biotechnology, 2004, 22, 717-723.	9.4	140
83	Gadd45Î² mediates the NF-ÎºB suppression of JNK signalling by targeting MKK7/JNKK2. Nature Cell Biology, 2004, 6, 146-153.	4.6	318
84	Discovery of a Small Molecule that Inhibits the Interaction of Anthrax Edema Factor with Its Cellular Activator, Calmodulin. Chemistry and Biology, 2004, 11, 1139-1146.	6.2	33
85	A Soluble C1b Protein and Its Regulation of Soluble Type 7 Adenylyl Cyclase. Biochemistry, 2004, 43, 15463-15471.	1.2	9
86	Structure of anthrax edema factorâ€"calmodulinâ€"adenosine 5â€²-(Î±,Î²-methylene)-triphosphate complex reveals an alternative mode of ATP binding to the catalytic site. Biochemical and Biophysical Research Communications, 2004, 317, 309-314.	1.0	29
87	Structure-based Inhibitor Discovery against Adenylyl Cyclase Toxins from Pathogenic Bacteria That Cause Anthrax and Whooping Cough. Journal of Biological Chemistry, 2003, 278, 25990-25997.	1.6	81
88	Calcium Dependence of the Interaction between Calmodulin and Anthrax Edema Factor. Journal of Biological Chemistry, 2003, 278, 29261-29266.	1.6	51
89	Expression of Î± Subunit of Gs in Escherichia coli. Methods in Enzymology, 2002, 344, 171-175.	0.4	8
90	Construction of Soluble Adenylyl Cyclase from Human Membrane-Bound Type 7 Adenylyl Cyclase. Methods in Enzymology, 2002, 345, 231-241.	0.4	11

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91	Structural basis for the activation of anthrax adenylyl cyclase exotoxin by calmodulin. Nature, 2002, 415, 396-402.	13.7	388
92	Physiological calcium concentrations regulate calmodulin binding and catalysis of adenylyl cyclase exotoxins. EMBO Journal, 2002, 21, 6721-6732.	3.5	91
93	Crystallization and preliminary X-ray study of the edema factor exotoxin adenylyl cyclase domain fromBacillus anthracisin the presence of its activator, calmodulin. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 1881-1884.	2.5	22
94	The Regulation of Type 7 Adenylyl Cyclase by Its C1b Region and Escherichia coli Peptidylprolyl Isomerase, SlyD. Journal of Biological Chemistry, 2001, 276, 8500-8506.	1.6	33
95	Inhibition of Adenylyl and Guanylyl Cyclase Isoforms by the Antiviral Drug Foscarnet. Journal of Biological Chemistry, 2001, 276, 3010-3016.	1.6	28
96	An Extended Conformation of Calmodulin Induces Interactions between the Structural Domains of Adenylyl Cyclase from Bacillus anthracis to Promote Catalysis. Journal of Biological Chemistry, 2000, 275, 36334-36340.	1.6	60
97	The Inwardly Rectifying K⁺Channel Subunit GIRK1 Rescues the GIRK2<i>weaver</i>Phenotype. Journal of Neuroscience, 1999, 19, 8327-8336.	1.7	9
98	The C2 Catalytic Domain of Adenylyl Cyclase Contains the Second Metal Ion (Mn2+) Binding Siteâ€. Biochemistry, 1998, 37, 16183-16191.	1.2	21
99	Conversion of Forskolin-Insensitive to Forskolin-Sensitive (Mouse-Type IX) Adenylyl Cyclase. Molecular Pharmacology, 1998, 53, 182-187.	1.0	84
100	Catalytic Mechanism and Regulation of Mammalian Adenylyl Cyclases. Molecular Pharmacology, 1998, 54, 231-240.	1.0	184
101	Chronic Morphine Augments Adenylyl Cyclase Phosphorylation: Relevance to Altered Signaling during Tolerance/Dependence. Molecular Pharmacology, 1998, 54, 949-953.	1.0	99
102	Three Discrete Regions of Mammalian Adenylyl Cyclase Form a Site for GsÎ± Activation. Journal of Biological Chemistry, 1997, 272, 18849-18854.	1.6	48
103	The Conserved Asparagine and Arginine Are Essential for Catalysis of Mammalian Adenylyl Cyclase. Journal of Biological Chemistry, 1997, 272, 12342-12349.	1.6	65
104	Characterization and crystallization of a minimal catalytic core domain from mammalian type II adenylyl cyclase. Protein Science, 1997, 6, 903-908.	3.1	19
105	7 Class III adenylyl cyclases: Regulation and underlying mechanisms. Advances in Second Messenger and Phosphoprotein Research, 1997, 32, 137-151.	4.5	19
106	Forskolin Carbamates: Binding and Activation Studies with Type I Adenylyl Cyclase. Journal of Medicinal Chemistry, 1996, 39, 2745-2752.	2.9	19
107	Two Cytoplasmic Domains of Mammalian Adenylyl Cyclase Form a GSÎ±- and Forskolin-activated Enzyme in Vitro. Journal of Biological Chemistry, 1996, 271, 10941-10945.	1.6	104
108	Truncation and Alanine-Scanning Mutants of Type I Adenylyl Cyclase. Biochemistry, 1995, 34, 14563-14572.	1.2	131

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109	Regulation of forskolin interactions with type I, II, V, and VI adenylyl cyclases by Gs.alpha.. Biochemistry, 1994, 33, 12852-12859.	1.2	203
110	[7] Expression and purification of recombinant adenylyl cyclases in Sf9 cells. Methods in Enzymology, 1994, 238, 95-108.	0.4	18
111	Conditional regulation of adenylyl cyclases by G-protein Î²Î³-subunits. Biochemical Society Transactions, 1993, 21, 1132-1138.	1.6	7
112	Adenylyl cyclases. Cell, 1992, 70, 869-872.	13.5	460