

# Wei-Jen Tang

## List of Publications by Year in descending order

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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	Adenylyl cyclases. <i>Cell</i> , 1992, 70, 869-872.	13.5	460
2	Structural basis for the activation of anthrax adenylyl cyclase exotoxin by calmodulin. <i>Nature</i> , 2002, 415, 396-402.	13.7	388
3	Gadd45 <sup>Δ2</sup> mediates the NF- $\kappa$ B suppression of JNK signalling by targeting MKK7/JNKK2. <i>Nature Cell Biology</i> , 2004, 6, 146-153.	4.6	318
4	Structures of human insulin-degrading enzyme reveal a new substrate recognition mechanism. <i>Nature</i> , 2006, 443, 870-874.	13.7	315
5	Anti-diabetic activity of insulin-degrading enzyme inhibitors mediated by multiple hormones. <i>Nature</i> , 2014, 511, 94-98.	13.7	207
6	Regulation of forskolin interactions with type I, II, V, and VI adenylyl cyclases by Gs.alpha.. <i>Biochemistry</i> , 1994, 33, 12852-12859.	1.2	203
7	Catalytic Mechanism and Regulation of Mammalian Adenylyl Cyclases. <i>Molecular Pharmacology</i> , 1998, 54, 231-240.	1.0	184
8	Bacillus anthracis Edema Toxin Causes Extensive Tissue Lesions and Rapid Lethality in Mice. <i>American Journal of Pathology</i> , 2005, 167, 1309-1320.	1.9	172
9	Amyloid $\beta$ -degrading cryptidases: insulin degrading enzyme, presequence peptidase, and neprilysin. <i>Cellular and Molecular Life Sciences</i> , 2008, 65, 2574-2585.	2.4	153
10	Anthrax toxins suppress T lymphocyte activation by disrupting antigen receptor signaling. <i>Journal of Experimental Medicine</i> , 2005, 201, 325-331.	4.2	152
11	Chemical screening by mass spectrometry to identify inhibitors of anthrax lethal factor. <i>Nature Biotechnology</i> , 2004, 22, 717-723.	9.4	140
12	Anthrax Edema Toxin Cooperates with Lethal Toxin to Impair Cytokine Secretion during Infection of Dendritic Cells. <i>Journal of Immunology</i> , 2005, 174, 4934-4941.	0.4	136
13	Truncation and Alanine-Scanning Mutants of Type I Adenylyl Cyclase. <i>Biochemistry</i> , 1995, 34, 14563-14572.	1.2	131
14	Phosphorylation of FADD at Serine 194 by CKI $\beta$ Regulates Its Nonapoptotic Activities. <i>Molecular Cell</i> , 2005, 19, 321-332.	4.5	130
15	Polymerization of MIP-1 chemokine (CCL3 and CCL4) and clearance of MIP-1 by insulin-degrading enzyme. <i>EMBO Journal</i> , 2010, 29, 3952-3966.	3.5	129
16	Calcium-independent calmodulin binding and two-metal <sup>II</sup> ion catalytic mechanism of anthrax edema factor. <i>EMBO Journal</i> , 2005, 24, 929-941.	3.5	127
17	Structural basis for the interaction of Bordetella pertussis adenylyl cyclase toxin with calmodulin. <i>EMBO Journal</i> , 2005, 24, 3190-3201.	3.5	127
18	Selective inhibition of anthrax edema factor by adefovir, a drug for chronic hepatitis B virus infection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 3242-3247.	3.3	109

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19	Structure of Substrate-free Human Insulin-degrading Enzyme (IDE) and Biophysical Analysis of ATP-induced Conformational Switch of IDE. <i>Journal of Biological Chemistry</i> , 2007, 282, 25453-25463.	1.6	108
20	Two Cytoplasmic Domains of Mammalian Adenylyl Cyclase Form a GS $\pm$ - and Forskolin-activated Enzyme in Vitro. <i>Journal of Biological Chemistry</i> , 1996, 271, 10941-10945.	1.6	104
21	Chronic Morphine Augments Adenylyl Cyclase Phosphorylation: Relevance to Altered Signaling during Tolerance/Dependence. <i>Molecular Pharmacology</i> , 1998, 54, 949-953.	1.0	99
22	Spatial localization of bacteria controls coagulation of human blood by 'quorum acting'. <i>Nature Chemical Biology</i> , 2008, 4, 742-750.	3.9	95
23	Physiological calcium concentrations regulate calmodulin binding and catalysis of adenylyl cyclase exotoxins. <i>EMBO Journal</i> , 2002, 21, 6721-6732.	3.5	91
24	Designed Inhibitors of Insulin-Degrading Enzyme Regulate the Catabolism and Activity of Insulin. <i>PLoS ONE</i> , 2010, 5, e10504.	1.1	91
25	The adenylyl cyclase activity of anthrax edema factor. <i>Molecular Aspects of Medicine</i> , 2009, 30, 423-430.	2.7	87
26	Cellular Functions and X-ray Structure of Anthrolysin O, a Cholesterol-dependent Cytolysin Secreted by <i>Bacillus anthracis</i> . <i>Journal of Biological Chemistry</i> , 2009, 284, 14645-14656.	1.6	86
27	Conversion of Forskolin-Insensitive to Forskolin-Sensitive (Mouse-Type IX) Adenylyl Cyclase. <i>Molecular Pharmacology</i> , 1998, 53, 182-187.	1.0	84
28	Targeting Insulin-Degrading Enzyme to Treat Type 2 Diabetes Mellitus. <i>Trends in Endocrinology and Metabolism</i> , 2016, 27, 24-34.	3.1	82
29	Structure-based Inhibitor Discovery against Adenylyl Cyclase Toxins from Pathogenic Bacteria That Cause Anthrax and Whooping Cough. <i>Journal of Biological Chemistry</i> , 2003, 278, 25990-25997.	1.6	81
30	Modular Total Chemical Synthesis of a Human Immunodeficiency Virus Type 1 Protease. <i>Journal of the American Chemical Society</i> , 2007, 129, 11480-11490.	6.6	79
31	Molecular Bases for the Recognition of Short Peptide Substrates and Cysteine-Directed Modifications of Human Insulin-Degrading Enzyme. <i>Biochemistry</i> , 2008, 47, 12822-12834.	1.2	73
32	Molecular Basis for the Recognition and Cleavages of IGF-II, TGF- $\beta$ , and Amylin by Human Insulin-Degrading Enzyme. <i>Journal of Molecular Biology</i> , 2010, 395, 430-443.	2.0	72
33	Structural basis for oligomerization and glycosaminoglycan binding of CCL5 and CCL3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 5000-5005.	3.3	72
34	Catalytic site inhibition of insulin-degrading enzyme by a small molecule induces glucose intolerance in mice. <i>Nature Communications</i> , 2015, 6, 8250.	5.8	71
35	Molecular Basis of Catalytic Chamber-assisted Unfolding and Cleavage of Human Insulin by Human Insulin-degrading Enzyme. <i>Journal of Biological Chemistry</i> , 2009, 284, 14177-14188.	1.6	69
36	The Conserved Asparagine and Arginine Are Essential for Catalysis of Mammalian Adenylyl Cyclase. <i>Journal of Biological Chemistry</i> , 1997, 272, 12342-12349.	1.6	65

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37	Use of allosteric 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
38	Insulin-degrading Enzyme Modulates the Natriuretic Peptide-mediated Signaling Response. Journal of Biological Chemistry, 2011, 286, 4670-4679.	1.6	65
39	An Extended Conformation of Calmodulin Induces Interactions between the Structural Domains of Adenylyl Cyclase from <i>Bacillus anthracis</i> to Promote Catalysis. Journal of Biological Chemistry, 2000, 275, 36334-36340.	1.6	60
40	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
41	Anthrax Edema Toxin Inhibits Endothelial Cell Chemotaxis via Epac and Rap1. Journal of Biological Chemistry, 2007, 282, 19781-19787.	1.6	59
42	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
43	Anthrax Toxins Induce Shock in Rats by Depressed Cardiac Ventricular Function. PLoS ONE, 2007, 2, e466.	1.1	58
44	Anthrax toxin-induced shock in rats is associated with pulmonary edema and hemorrhage. Microbial Pathogenesis, 2008, 44, 467-472.	1.3	53
45	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
46	Noninvasive Imaging Technologies Reveal Edema Toxin as a Key Virulence Factor in Anthrax. American Journal of Pathology, 2011, 178, 2523-2535.	1.9	52
47	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
48	Calcium Dependence of the Interaction between Calmodulin and Anthrax Edema Factor. Journal of Biological Chemistry, 2003, 278, 29261-29266.	1.6	51
49	Locking the Elbow: Improved Antibody Fab Fragments as Chaperones for Structure Determination. Journal of Molecular Biology, 2018, 430, 337-347.	2.0	50
50	Three Discrete Regions of Mammalian Adenylyl Cyclase Form a Site for Gs $\alpha$ Activation. Journal of Biological Chemistry, 1997, 272, 18849-18854.	1.6	48
51	Ensemble cryoEM elucidates the mechanism of insulin capture and degradation by human insulin degrading enzyme. ELife, 2018, 7, .	2.8	45
52	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
53	Structural Determinants of Ubiquitin-CXC Chemokine Receptor 4 Interaction. Journal of Biological Chemistry, 2011, 286, 44145-44152.	1.6	40
54	Molecular Basis of Substrate Recognition and Degradation by Human Presequence Protease. Structure, 2014, 22, 996-1007.	1.6	40

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55	Molecular Analysis of the Interaction of Bordetella pertussis Adenylyl Cyclase with Fluorescent Nucleotides. <i>Molecular Pharmacology</i> , 2007, 72, 526-535.	1.0	37
56	<i>Bacillus anthracis</i> Edema Toxin Impairs Neutrophil Actin-Based Motility. <i>Infection and Immunity</i> , 2009, 77, 2455-2464.	1.0	36
57	Protective Role of Cys-178 against the Inactivation and Oligomerization of Human Insulin-degrading Enzyme by Oxidation and Nitrosylation. <i>Journal of Biological Chemistry</i> , 2009, 284, 34005-34018.	1.6	36
58	Molecular Analysis of the Interaction of Anthrax Adenylyl Cyclase Toxin, Edema Factor, with 2- <i>O</i> -( <i>N</i> -(methyl)anthraniloyl)-Substituted Purine and Pyrimidine Nucleotides. <i>Molecular Pharmacology</i> , 2009, 75, 693-703.	1.0	36
59	The Amino Terminus of Varicella-Zoster Virus (VZV) Glycoprotein E Is Required for Binding to Insulin-Degrading Enzyme, a VZV Receptor. <i>Journal of Virology</i> , 2007, 81, 8525-8532.	1.5	35
60	Lethal and edema toxins of anthrax induce distinct hemodynamic dysfunction. <i>Frontiers in Bioscience - Landmark</i> , 2007, 12, 4670.	3.0	34
61	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. <i>PLoS ONE</i> , 2013, 8, e70223.	1.1	34
62	The Regulation of Type 7 Adenylyl Cyclase by Its C1b Region and Escherichia coli Peptidylprolyl Isomerase, SlyD. <i>Journal of Biological Chemistry</i> , 2001, 276, 8500-8506.	1.6	33
63	Discovery of a Small Molecule that Inhibits the Interaction of Anthrax Edema Factor with Its Cellular Activator, Calmodulin. <i>Chemistry and Biology</i> , 2004, 11, 1139-1146.	6.2	33
64	Ubiquitin Is a Novel Substrate for Human Insulin-Degrading Enzyme. <i>Journal of Molecular Biology</i> , 2011, 406, 454-466.	2.0	31
65	Anthrax Edema Toxin Sensitizes DBA/2J Mice to Lethal Toxin. <i>Infection and Immunity</i> , 2007, 75, 2120-2125.	1.0	30
66	Structure of anthrax edema factor-calmodulin-adenosine 5-( $\gamma$ -methylene)-triphosphate complex reveals an alternative mode of ATP binding to the catalytic site. <i>Biochemical and Biophysical Research Communications</i> , 2004, 317, 309-314.	1.0	29
67	A fluorimetric assay for real-time monitoring of adenylyl cyclase activity based on terbium norfloxacin. <i>Analytical Biochemistry</i> , 2008, 381, 86-93.	1.1	29
68	The role of anthrolysin O in gut epithelial barrier disruption during <i>Bacillus anthracis</i> infection. <i>Biochemical and Biophysical Research Communications</i> , 2010, 394, 254-259.	1.0	29
69	Inhibition of Adenylyl and Guanylyl Cyclase Isoforms by the Antiviral Drug Foscarnet. <i>Journal of Biological Chemistry</i> , 2001, 276, 3010-3016.	1.6	28
70	Real-time Analysis of Ternary Complex on Particles. <i>Journal of Biological Chemistry</i> , 2004, 279, 13514-13521.	1.6	28
71	Protein-Protein Docking and Analysis Reveal That Two Homologous Bacterial Adenylyl Cyclase Toxins Interact with Calmodulin Differently. <i>Journal of Biological Chemistry</i> , 2008, 283, 23836-23845.	1.6	27
72	Imidazole-derived 2-[ <i>N</i> -carbamoylmethyl-alkylamino]acetic acids, substrate-dependent modulators of insulin-degrading enzyme in amyloid- $\beta$ hydrolysis. <i>European Journal of Medicinal Chemistry</i> , 2014, 79, 184-193.	2.6	27

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73	Degradation of Alzheimer's Amyloid- $\beta^2$ by a Catalytically Inactive Insulin-Degrading Enzyme. <i>Journal of Molecular Biology</i> , 2021, 433, 166993.	2.0	27
74	Comparison of Three Anthrax Toxin Neutralization Assays. <i>Vaccine Journal</i> , 2010, 17, 895-903.	3.2	26
75	Structure-activity relationships of imidazole-derived 2-[N-carbamoylmethyl-alkylamino]acetic acids, dual binders of human insulin-degrading enzyme. <i>European Journal of Medicinal Chemistry</i> , 2015, 90, 547-567.	2.6	24
76	Insights from Atomic-Resolution X-Ray Structures of Chemically Synthesized HIV-1 Protease in Complex with Inhibitors. <i>Journal of Molecular Biology</i> , 2007, 373, 573-586.	2.0	23
77	Bis-Halogen-Anthraniloyl-Substituted Nucleoside 5'-Triphosphates as Potent and Selective Inhibitors of <i>Bordetella pertussis</i> Adenylyl Cyclase Toxin. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 336, 104-115.	1.3	23
78	Crystallization and preliminary X-ray study of the edema factor exotoxin adenylyl cyclase domain from <i>Bacillus anthracis</i> in the presence of its activator, calmodulin. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2001, 57, 1881-1884.	2.5	22
79	A 1.3-Å Structure of Zinc-bound N-terminal Domain of Calmodulin Elucidates Potential Early Ion-binding Step. <i>Journal of Molecular Biology</i> , 2007, 374, 517-527.	2.0	22
80	The C2 Catalytic Domain of Adenylyl Cyclase Contains the Second Metal Ion (Mn <sup>2+</sup> ) Binding Site. <i>Biochemistry</i> , 1998, 37, 16183-16191.	1.2	21
81	Modulation of the CXC Chemokine Receptor 4 Agonist Activity of Ubiquitin through C-Terminal Protein Modification. <i>Biochemistry</i> , 2013, 52, 4184-4192.	1.2	21
82	Structures of Human CCL18, CCL3, and CCL4 Reveal Molecular Determinants for Quaternary Structures and Sensitivity to Insulin-Degrading Enzyme. <i>Journal of Molecular Biology</i> , 2015, 427, 1345-1358.	2.0	21
83	Anthrax edema factor potency depends on mode of cell entry. <i>Biochemical and Biophysical Research Communications</i> , 2005, 335, 850-857.	1.0	20
84	Expression of metalloprotease insulin-degrading enzyme insulysin in normal and malignant human tissues. <i>International Journal of Molecular Medicine</i> , 2008, 22, 421-31.	1.8	20
85	Forskolin Carbamates: Binding and Activation Studies with Type I Adenylyl Cyclase. <i>Journal of Medicinal Chemistry</i> , 1996, 39, 2745-2752.	2.9	19
86	Characterization and crystallization of a minimal catalytic core domain from mammalian type II adenylyl cyclase. <i>Protein Science</i> , 1997, 6, 903-908.	3.1	19
87	7 Class III adenylyl cyclases: Regulation and underlying mechanisms. <i>Advances in Second Messenger and Phosphoprotein Research</i> , 1997, 32, 137-151.	4.5	19
88	[7] Expression and purification of recombinant adenylyl cyclases in Sf9 cells. <i>Methods in Enzymology</i> , 1994, 238, 95-108.	0.4	18
89	Contributions of Edema Factor and Protective Antigen to the Induction of Protective Immunity by <i>Bacillus anthracis</i> Edema Toxin as an Intranasal Adjuvant. <i>Journal of Immunology</i> , 2010, 185, 5943-5952.	0.4	18
90	Previous Exposure to $\delta^9$ -Tetrahydrocannabinol Enhances Locomotor Responding to but Not Self-Administration of Amphetamine. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2011, 337, 724-733.	1.3	18

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91	Empirical Valence Bond Simulations of the Chemical Mechanism of ATP to cAMP Conversion by Anthrax Edema Factor. <i>Biochemistry</i> , 2013, 52, 2672-2682.	1.2	16
92	Daughterless homodimer synergizes with Eyeless to induce Atonal expression and retinal neuron differentiation. <i>Developmental Biology</i> , 2014, 392, 256-265.	0.9	16
93	Structural changes in intermediate filament networks alter the activity of insulin-degrading enzyme. <i>FASEB Journal</i> , 2009, 23, 3734-3742.	0.2	15
94	Identification of ebiselen as a potent inhibitor of insulin degrading enzyme by a drug repurposing screening. <i>European Journal of Medicinal Chemistry</i> , 2019, 179, 557-566.	2.6	13
95	Inhibition of the adenylyl cyclase toxin, edema factor, from <i>Bacillus anthracis</i> by a series of 18 mono- and bis-(M)ANT-substituted nucleoside 5'-triphosphates. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2012, 385, 57-68.	1.4	12
96	Construction of Soluble Adenylyl Cyclase from Human Membrane-Bound Type 7 Adenylyl Cyclase. <i>Methods in Enzymology</i> , 2002, 345, 231-241.	0.4	11
97	Distinct interactions of 2'- and 3'-O-(N-methyl)anthraniloyl-isomers of ATP and GTP with the adenylyl cyclase toxin of <i>Bacillus anthracis</i> , edema factor. <i>Biochemical Pharmacology</i> , 2009, 78, 224-230.	2.0	11
98	The Inwardly Rectifying K <sup>+</sup> Channel Subunit GIRK1 Rescues the GIRK2 <sup>weaver</sup> Phenotype. <i>Journal of Neuroscience</i> , 1999, 19, 8327-8336.	1.7	9
99	A Soluble C1b Protein and Its Regulation of Soluble Type 7 Adenylyl Cyclase. <i>Biochemistry</i> , 2004, 43, 15463-15471.	1.2	9
100	Interactions of <i>Bordetella pertussis</i> adenylyl cyclase toxin CyaA with calmodulin mutants and calmodulin antagonists: Comparison with membranous adenylyl cyclase I. <i>Biochemical Pharmacology</i> , 2012, 83, 839-848.	2.0	9
101	Catalytic Mechanism of Amyloid- $\beta$ Peptide Degradation by Insulin Degrading Enzyme: Insights from Quantum Mechanics and Molecular Mechanics Style MÅller's Plesset Second Order Perturbation Theory Calculation. <i>Journal of Chemical Information and Modeling</i> , 2018, 58, 1926-1934.	2.5	9
102	Expression of $\beta$ Subunit of Gs in <i>Escherichia coli</i> . <i>Methods in Enzymology</i> , 2002, 344, 171-175.	0.4	8
103	Conditional regulation of adenylyl cyclases by G-protein $\beta\gamma$ -subunits. <i>Biochemical Society Transactions</i> , 1993, 21, 1132-1138.	1.6	7
104	Immunohistochemical evidence of ubiquitous distribution of the metalloendoprotease insulin-degrading enzyme (IDE; insulysin) in human non-malignant tissues and tumor cell lines. <i>Biological Chemistry</i> , 2008, 389, 1441-1445.	1.2	7
105	<i>Pseudomonas aeruginosa</i> exoenzyme Y directly bundles actin filaments. <i>Journal of Biological Chemistry</i> , 2020, 295, 3506-3517.	1.6	7
106	Reinvestigating the synthesis and efficacy of small benzimidazole derivatives as presequence protease enhancers. <i>European Journal of Medicinal Chemistry</i> , 2019, 184, 111746.	2.6	5
107	Rapid Discovery and Characterization of Synthetic Neutralizing Antibodies against Anthrax Edema Toxin. <i>Biochemistry</i> , 2019, 58, 2996-3004.	1.2	4
108	Structural basis for the mechanisms of human presequence protease conformational switch and substrate recognition. <i>Nature Communications</i> , 2022, 13, 1833.	5.8	4

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109	The Case for Developing Consensus Standards for Research in Microbial Pathogenesis: <i>Bacillus anthracis</i> Toxins as an Example. <i>Infection and Immunity</i> , 2009, 77, 4182-4186.	1.0	3
110	Crystal structures of catalytic and regulatory subunits of rat protein kinase CK2. <i>Science Bulletin</i> , 2009, 54, 220-226.	4.3	3
111	Different Roles of N-Terminal and C-Terminal Domains in Calmodulin for Activation of <i>Bacillus anthracis</i> Edema Factor. <i>Toxins</i> , 2015, 7, 2598-2614.	1.5	3
112	Structural analysis of <i>Mycobacterium tuberculosis</i> M13 metalloprotease Zmp1 open states. <i>Structure</i> , 2021, 29, 709-720.e3.	1.6	3