Jenny J Yang

List of Publications by Year
in descending order

106 papers	4,021 citations	109321 35 h-index	144013 57 g-index
106 all docs	106 docs citations	106 times ranked	4826 citing authors

#	Article	IF	Citations
1	Viral calciomics: Interplays between Ca2+ and virus. Cell Calcium, 2009, 46, 1-17.	2.4	286
2	Identification of 70 calcium-sensing receptor mutations in hyper- and hypo-calcaemic patients: evidence for clustering of extracellular domain mutations at calcium-binding sites. Human Molecular Genetics, 2012, 21, 2768-2778.	2.9	154
3	Prediction of EF-hand calcium-binding proteins and analysis of bacterial EF-hand proteins. Proteins: Structure, Function and Bioinformatics, 2006, 65, 643-655.	2.6	136
4	Structural analysis, identification, and design of calcium-binding sites in proteins. Proteins: Structure, Function and Bioinformatics, 2002, 47, 344-356.	2.6	125
5	Conformational Properties of Four Peptides Spanning the Sequence of Hen Lysozyme. Journal of Molecular Biology, 1995, 252, 483-491.	4.2	121
6	Structural basis for regulation of human calcium-sensing receptor by magnesium ions and an unexpected tryptophan derivative co-agonist. Science Advances, 2016, 2, e1600241.	10.3	116
7	Multiple Ca²⁺-Binding Sites in the Extracellular Domain of the Ca²⁺-Sensing Receptor Corresponding to Cooperative Ca²⁺ Response. Biochemistry, 2009, 48, 388-398.	2.5	115
8	Rational Design of Protein-Based MRI Contrast Agents. Journal of the American Chemical Society, 2008, 130, 9260-9267.	13.7	111
9	Probing Site-Specific Calmodulin Calcium and Lanthanide Affinity by Grafting. Journal of the American Chemical Society, 2005, 127, 3743-3750.	13.7	96
10	Design and application of a class of sensors to monitor Ca ²⁺ dynamics in high Ca ²⁺ concentration cellular compartments. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16265-16270.	7.1	96
11	Identification and Dissection of Ca2+-binding Sites in the Extracellular Domain of Ca2+-sensing Receptor. Journal of Biological Chemistry, 2007, 282, 19000-19010.	3.4	93
12	Biochemical and Biophysical Investigation of the Brain-derived Neurotrophic Factor Mimetic 7,8-Dihydroxyflavone in the Binding and Activation of the TrkB Receptor. Journal of Biological Chemistry, 2014, 289, 27571-27584.	3.4	88
13	Identification of the Calmodulin Binding Domain of Connexin 43. Journal of Biological Chemistry, 2007, 282, 35005-35017.	3.4	79
14	Protein MRI contrast agent with unprecedented metal selectivity and sensitivity for liver cancer imaging. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6607-6612.	7.1	78
15	Calciomics: integrative studies of Ca²⁺-binding proteins and their interactomes in biological systems. Metallomics, 2013, 5, 29-42.	2.4	77
16	Pyruvate Kinase M2 in Blood Circulation Facilitates Tumor Growth by Promoting Angiogenesis. Journal of Biological Chemistry, 2014, 289, 25812-25821.	3.4	67
17	Metal toxicity and opportunistic binding of Pb2+ in proteins. Journal of Inorganic Biochemistry, 2013, 125, 40-49.	3.5	66
18	Structural differences between Pb2+- and Ca2+-binding sites in proteins: Implications with respect to toxicity. Journal of Inorganic Biochemistry, 2008, 102, 1901-1909.	3.5	63

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19	Predicting calciumâ€binding sites in proteinsâ€"A graph theory and geometry approach. Proteins: Structure, Function and Bioinformatics, 2006, 64, 34-42.	2.6	62
20	Rational Design of a Calcium-Binding Protein. Journal of the American Chemical Society, 2003, 125, 6165-6171.	13.7	60
21	Design of a Calcium-Binding Protein with Desired Structure in a Cell Adhesion Molecule. Journal of the American Chemical Society, 2005, 127, 2085-2093.	13.7	60
22	Calcium Dynamics Mediated by the Endoplasmic/Sarcoplasmic Reticulum and Related Diseases. International Journal of Molecular Sciences, 2017, 18, 1024.	4.1	59
23	Early detection and staging of chronic liver diseases with a protein MRI contrast agent. Nature Communications, 2019, 10, 4777.	12.8	54
24	Gating of connexin 43 gap junctions by a cytoplasmic loop calmodulin binding domain. American Journal of Physiology - Cell Physiology, 2012, 302, C1548-C1556.	4.6	53
25	Statistical analysis of structural characteristics of protein Ca2+-binding sites. Journal of Biological Inorganic Chemistry, 2008, 13, 1169-1181.	2.6	52
26	Towards predicting Ca²⁺â€binding sites with different coordination numbers in proteins with atomic resolution. Proteins: Structure, Function and Bioinformatics, 2009, 75, 787-798.	2.6	51
27	Defining potential roles of Pb²⁺in neurotoxicity from a calciomics approach. Metallomics, 2016, 8, 563-578.	2.4	50
28	Gap junction regulation by calmodulin. FEBS Letters, 2014, 588, 1430-1438.	2.8	48
29	Molecular Basis of the Extracellular Ligands Mediated Signaling by the Calcium Sensing Receptor. Frontiers in Physiology, 2016, 7, 441.	2.8	48
30	Developing Sensors for Real-Time Measurement of High Ca2+ Concentrations. Biochemistry, 2007, 46, 12275-12288.	2.5	45
31	Molecular interaction and functional regulation of connexin50 gap junctions by calmodulin. Biochemical Journal, 2011, 435, 711-722.	3.7	45
32	The calcium sensing receptor: from calcium sensing to signaling. Science China Life Sciences, 2015, 58, 14-27.	4.9	44
33	Calmodulin Mediates the Ca2+-Dependent Regulation of Cx44 Gap Junctions. Biophysical Journal, 2009, 96, 2832-2848.	0.5	42
34	HER2 Targeted Molecular MR Imaging Using a De Novo Designed Protein Contrast Agent. PLoS ONE, 2011, 6, e18103.	2.5	40
35	Design of a novel class of proteinâ€based magnetic resonance imaging contrast agents for the molecular imaging of cancer biomarkers. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2013, 5, 163-179.	6.1	37
36	Metal binding affinity and structural properties of an isolated EF-loop in a scaffold protein. Protein Engineering, Design and Selection, 2001, 14, 1001-1013.	2.1	35

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37	Prostate-specific membrane antigen targeted protein contrast agents for molecular imaging of prostate cancer by MRI. Nanoscale, 2016, 8, 12668-12682.	5.6	34
38	A single EFâ€hand isolated from STIM1 forms dimer in the absence and presence of Ca²⁺. FEBS Journal, 2009, 276, 5589-5597.	4.7	33
39	Obtaining Site-Specific Calcium-Binding Affinities Of Calmodulin. Protein and Peptide Letters, 2003, 10, 331-345.	0.9	32
40	Rational design of a protein that binds integrin Î±vÎ²3 outside the ligand binding site. Nature Communications, 2016, 7, 11675.	12.8	31
41	Role of Calcium in Metalloenzymes: Effects of Calcium Removal on the Axial Ligation Geometry and Magnetic Properties of the Catalytic Diheme Center in MauG. Biochemistry, 2012, 51, 1586-1597.	2.5	30
42	Design of ProCAs (Proteinâ€Based Gd³⁺ MRI Contrast Agents) with High Dose Efficiency and Capability for Molecular Imaging of Cancer Biomarkers. Medicinal Research Reviews, 2014, 34, 1070-1099.	10.5	30
43	Identification of an l-Phenylalanine Binding Site Enhancing the Cooperative Responses of the Calcium-sensing Receptor to Calcium. Journal of Biological Chemistry, 2014, 289, 5296-5309.	3.4	30
44	Identification of a Ca 2+ -Binding Domain in the Rubella Virus Nonstructural Protease. Journal of Virology, 2007, 81, 7517-7528.	3.4	29
45	Designing Protease Sensors for Real-Time Imaging of Trypsin Activation in Pancreatic Cancer Cells. Biochemistry, 2009, 48, 3519-3526.	2.5	28
46	Simultaneously targeting cancer-associated fibroblasts and angiogenic vessel as a treatment for TNBC. Journal of Experimental Medicine, 2021, 218, .	8.5	28
47	Elucidation of a Novel Extracellular Calcium-binding Site on Metabotropic Glutamate Receptor 1Î± (mGluR1Î±) That Controls Receptor Activation*. Journal of Biological Chemistry, 2010, 285, 33463-33474.	3.4	27
48	Calmodulin Regulates Ca2+-sensing Receptor-mediated Ca2+ Signaling and Its Cell Surface Expression. Journal of Biological Chemistry, 2010, 285, 35919-35931.	3.4	27
49	Structural Aspects and Prediction of Calmodulin-Binding Proteins. International Journal of Molecular Sciences, 2021, 22, 308.	4.1	27
50	Structural Biology of the Cell Adhesion Protein CD2 Alternatively Folded States and Structure-function Relation. Current Protein and Peptide Science, 2001, 2, 1-17.	1.4	26
51	Analysis and prediction of calciumâ€binding pockets from apoâ€protein structures exhibiting calciumâ€induced localized conformational changes. Protein Science, 2010, 19, 1180-1190.	7.6	26
52	Direct visualization of interaction between calmodulin and connexin45. Biochemical Journal, 2017, 474, 4035-4051.	3.7	26
53	A grafting approach to obtain site-specific metal-binding properties of EF-hand proteins. Protein Engineering, Design and Selection, 2003, 16, 429-434.	2.1	25
54	Protein-Based MRI Contrast Agents for Molecular Imaging of Prostate Cancer. Molecular Imaging and Biology, 2011, 13, 416-423.	2.6	24

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55	PEGylation of protein-based MRI contrast agents improves relaxivities and biocompatibilities. Journal of Inorganic Biochemistry, 2012, 107, 111-118.	3.5	24
56	Direct Determination of Multiple Ligand Interactions with the Extracellular Domain of the Calcium-sensing Receptor. Journal of Biological Chemistry, 2014, 289, 33529-33542.	3.4	23
57	Calcium and lanthanide affinity of the EF-loops from the C-terminal domain of calmodulin. Journal of Inorganic Biochemistry, 2005, 99, 1376-1383.	3.5	22
58	Extracellular Calcium Modulates Actions of Orthosteric and Allosteric Ligands on Metabotropic Glutamate Receptor 1Î±. Journal of Biological Chemistry, 2014, 289, 1649-1661.	3.4	22
59	GRPR-targeted Protein Contrast Agents for Molecular Imaging of Receptor Expression in Cancers by MRI. Scientific Reports, 2015, 5, 16214.	3.3	22
60	Molecular imaging of EGFR/HER2 cancer biomarkers by protein MRI contrast agents. Journal of Biological Inorganic Chemistry, 2014, 19, 259-270.	2.6	21
61	Fast kinetics of calcium signaling and sensor design. Current Opinion in Chemical Biology, 2015, 27, 90-97.	6.1	21
62	Interactome Analysis Reveals Regulator of G Protein Signaling 14 (RGS14) is a Novel Calcium/Calmodulin (Ca²⁺/CaM) and CaM Kinase II (CaMKII) Binding Partner. Journal of Proteome Research, 2018, 17, 1700-1711.	3.7	21
63	Modulation of Cancer-Associated Fibrotic Stroma by An Integrin Î±vÎ²3 Targeting Protein for Pancreatic Cancer Treatment. Cellular and Molecular Gastroenterology and Hepatology, 2021, 11, 161-179.	4.5	20
64	Precision detection of liver metastasis by collagen-targeted protein MRI contrast agent. Biomaterials, 2019, 224, 119478.	11.4	19
65	Rapid subcellular calcium responses and dynamics by calcium sensor G-CatchER+. IScience, 2021, 24, 102129.	4.1	19
66	Using Protein Design To Dissect the Effect of Charged Residues on Metal Binding and Protein Stability. Biochemistry, 2006, 45, 5848-5856.	2.5	18
67	Site-specific modification of calmodulin Ca2+ affinity tunes the skeletal muscle ryanodine receptor activation profile. Biochemical Journal, 2010, 432, 89-99.	3.7	18
68	Role of Ca2+ and L-Phe in Regulating Functional Cooperativity of Disease-Associated â€œToggleâ€• Calcium-Sensing Receptor Mutations. PLoS ONE, 2014, 9, e113622.	2.5	18
69	Effect of Ca²⁺ on the Steady-State and Time-Resolved Emission Properties of the Genetically Encoded Fluorescent Sensor CatchER. Journal of Physical Chemistry B, 2015, 119, 2103-2111.	2.6	18
70	Electronic Cigarette Exposure Enhances Lung Inflammatory and Fibrotic Responses in COPD Mice. Frontiers in Pharmacology, 2021, 12, 726586.	3.5	18
71	Chemokine receptor 4 targeted protein MRI contrast agent for early detection of liver metastases. Science Advances, 2020, 6, eaav7504.	10.3	17
72	Pyruvate kinase M2 regulates fibrosis development and progression by controlling glycine auxotrophy in myofibroblasts. Theranostics, 2021, 11, 9331-9341.	10.0	17

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73	The Effects of Ca2+ Binding on the Dynamic Properties of a Designed Ca2+-Binding Protein,. Biochemistry, 2005, 44, 8267-8273.	2.5	16
74	Rational design of a novel calciumâ€binding site adjacent to the ligandâ€binding site on CD2 increases its CD48 affinity. Protein Science, 2008, 17, 439-449.	7.6	16
75	Predicting Ca²⁺â€binding sites using refined carbon clusters. Proteins: Structure, Function and Bioinformatics, 2012, 80, 2666-2679.	2.6	15
76	Residual sarcoplasmic reticulum Ca2+ concentration after Ca2+ release in skeletal myofibers from young adult and old mice. Pflugers Archiv European Journal of Physiology, 2012, 463, 615-624.	2.8	15
77	Radiologic and Histopathologic Correlation of Different Growth Patterns of Metastatic Uveal Melanoma to the Liver. Ophthalmology, 2018, 125, 597-605.	5.2	15
78	Design of Calcium-Binding Proteins to Sense Calcium. Molecules, 2020, 25, 2148.	3.8	15
79	Molecular imaging of extracellular matrix proteins with targeted probes using magnetic resonance imaging. Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology, 2020, 12, e1622.	6.1	15
80	Prostate Cancer Metastatic to Bone has Higher Expression of the Calcium-Sensing Receptor (CaSR) than Primary Prostate Cancer. Receptors & Clinical Investigation, 2014, 1, .	0.9	14
81	Myoplasmic resting Ca2+ regulation by ryanodine receptors is under the control of a novel Ca2+-binding region of the receptor. Biochemical Journal, 2014, 460, 261-271.	3.7	13
82	Metal-binding studies for a de novo designed calcium-binding protein. Protein Engineering, Design and Selection, 2002, 15, 571-574.	2.1	12
83	Rational design of a conformationâ€switchable Ca²⁺â€•and Tb³⁺â€binding protein without the use of multiple coupled metalâ€binding sites. FEBS Journal, 2008, 275, 5048-5061.	4.7	12
84	Inverse tuning of metal binding affinity and protein stability by altering charged coordination residues in designed calcium binding proteins. PMC Biophysics, 2009, 2, 11.	2.3	12
85	Structural mechanism of cooperative regulation of calcium-sensing receptor-mediated cellular signaling. Current Opinion in Physiology, 2020, 17, 269-277.	1.8	10
86	Targeting integrin Î±vÎ²3 by a rationally designed protein for chronic liver disease treatment. Communications Biology, 2021, 4, 1087.	4.4	10
87	Tuning Protein Dynamics to Sense Rapid Endoplasmicâ€Reticulum Calcium Dynamics. Angewandte Chemie - International Edition, 2021, 60, 23289-23298.	13.8	10
88	Towards the Molecular Imaging of Prostate Cancer Biomarkers Using Protein-based MRI Contrast Agents. Current Protein and Peptide Science, 2016, 17, 519-533.	1.4	10
89	Integration of Diverse Research Methods to Analyze and Engineer Ca2+- Binding Proteins: From Prediction to Production. Current Bioinformatics, 2010, 5, 68-80.	1.5	8
90	Extracellular calcium alters calcium-sensing receptor network integrating intracellular calcium-signaling and related key pathway. Scientific Reports, 2021, 11, 20576.	3.3	8

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91	Temperature-Induced Formation of a Non-Native Intermediate State of the All - Î²Sheet Protein CD2. Cell Biochemistry and Biophysics, 2002, 36, 01-18.	1.8	7
92	Amyloid Fibril Formation by a Domain of Rat Cell Adhesion Molecule. Cell Biochemistry and Biophysics, 2006, 44, 241-250.	1.8	7
93	The hills and valleys of calcium signaling. Science China Life Sciences, 2016, 59, 743-748.	4.9	7
94	Molecular Basis for Modulation of Metabotropic Glutamate Receptors and Their Drug Actions by Extracellular Ca2+. International Journal of Molecular Sciences, 2017, 18, 672.	4.1	7
95	Structural basis for a hand-like site in the calcium sensor CatchER with fast kinetics. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 2309-2319.	2.5	6
96	Monitoring ER/SR Calcium Release with the Targeted Ca²⁺ Sensor CatchER⁺. Journal of Visualized Experiments, 2017, , .	0.3	6
97	Extracellular PKM2 facilitates organ-tissue fibrosis progression. IScience, 2021, 24, 103165.	4.1	6
98	Calcium and Viruses. , 2013, , 415-424.		6
99	Probing Ca2+-Binding Capability of Viral Proteins with the EF-Hand Motif by Grafting Approach. Methods in Molecular Biology, 2013, 963, 37-53.	0.9	6
100	Monitoring channel activities of proteoliposomes with SecA and Cx26 gap junction in single oocytes. Analytical Biochemistry, 2015, 480, 58-66.	2.4	4
101	ProCA1.GRPR: a new imaging agent in cancer detection. Biomarkers in Medicine, 2016, 10, 449-452.	1.4	4
102	Tuning Protein Dynamics to Sense Rapid Endoplasmicâ€Reticulum Calcium Dynamics. Angewandte Chemie, 2021, 133, 23477.	2.0	2
103	Non-invasive detection and complementary diagnosis of liver metastases via chemokine receptor 4 imaging. Cancer Gene Therapy, 2022, 29, 1827-1839.	4.6	2
104	Designing Calcium-Binding Proteins for Molecular MR Imaging. Methods in Molecular Biology, 2019, 1929, 111-125.	0.9	1
105	Calmodulin (CALM1). , 2017, , 1-10.		1
106	Redox-Inactive Metalloproteins and Metalloenzymes. , 2021, , 878-899.		0