

# Peter B Stathopoulos

## List of Publications by Year in descending order

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76  
papers

4,915  
citations

101384

36  
h-index

95083

68  
g-index

84  
all docs

84  
docs citations

84  
times ranked

5549  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural and Mechanistic Insights into STIM1-Mediated Initiation of Store-Operated Calcium Entry. <i>Cell</i> , 2008, 135, 110-122.	13.5	402
2	Stored Ca <sup>2+</sup> Depletion-induced Oligomerization of Stromal Interaction Molecule 1 (STIM1) via the EF-SAM Region. <i>Journal of Biological Chemistry</i> , 2006, 281, 35855-35862.	1.6	353
3	Sonication of proteins causes formation of aggregates that resemble amyloid. <i>Protein Science</i> , 2008, 13, 3017-3027.	3.1	341
4	Cu/Zn superoxide dismutase mutants associated with amyotrophic lateral sclerosis show enhanced formation of aggregates in vitro. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 7021-7026.	3.3	244
5	STIM1 couples to ORAI1 via an intramolecular transition into an extended conformation. <i>EMBO Journal</i> , 2011, 30, 1678-1689.	3.5	204
6	Oncogenic and RASopathy-associated K-RAS mutations relieve membrane-dependent occlusion of the effector-binding site. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6625-6630.	3.3	191
7	STIM1/Orai1 coiled-coil interplay in the regulation of store-operated calcium entry. <i>Nature Communications</i> , 2013, 4, 2963.	5.8	179
8	Mitochondrial Ca <sup>2+</sup> Uniporter Is a Mitochondrial Luminal Redox Sensor that Augments MCU Channel Activity. <i>Molecular Cell</i> , 2017, 65, 1014-1028.e7.	4.5	179
9	Initial activation of STIM1, the regulator of store-operated calcium entry. <i>Nature Structural and Molecular Biology</i> , 2013, 20, 973-981.	3.6	175
10	MCUR1 Is a Scaffold Factor for the MCU Complex Function and Promotes Mitochondrial Bioenergetics. <i>Cell Reports</i> , 2016, 15, 1673-1685.	2.9	170
11	Structural and functional conservation of key domains in InsP3 and ryanodine receptors. <i>Nature</i> , 2012, 483, 108-112.	13.7	163
12	Stromal Interaction Molecule (STIM) 1 and STIM2 Calcium Sensing Regions Exhibit Distinct Unfolding and Oligomerization Kinetics. <i>Journal of Biological Chemistry</i> , 2009, 284, 728-732.	1.6	162
13	Biophysical characterization of the EF-hand and SAM domain containing Ca <sup>2+</sup> sensory region of STIM1 and STIM2. <i>Biochemical and Biophysical Research Communications</i> , 2008, 369, 240-246.	1.0	133
14	Auto-inhibitory role of the EF-SAM domain of STIM proteins in store-operated calcium entry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 1337-1342.	3.3	121
15	A Selective and Cell-Permeable Mitochondrial Calcium Uniporter (MCU) Inhibitor Preserves Mitochondrial Bioenergetics after Hypoxia/Reoxygenation Injury. <i>ACS Central Science</i> , 2019, 5, 153-166.	5.3	112
16	A Coiled-coil Clamp Controls Both Conformation and Clustering of Stromal Interaction Molecule 1 (STIM1). <i>Journal of Biological Chemistry</i> , 2014, 289, 33231-33244.	1.6	105
17	Lactate Elicits ER-Mitochondrial Mg <sup>2+</sup> Dynamics to Integrate Cellular Metabolism. <i>Cell</i> , 2020, 183, 474-489.e17.	13.5	84
18	Cholesterol modulates Orai1 channel function. <i>Science Signaling</i> , 2016, 9, ra10.	1.6	80

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19	MIRO-1 Determines Mitochondrial Shape Transition upon GPCR Activation and Ca <sup>2+</sup> Stress. <i>Cell Reports</i> , 2018, 23, 1005-1019.	2.9	80
20	Calorimetric Analysis of Thermodynamic Stability and Aggregation for Apo and Holo Amyotrophic Lateral Sclerosis-associated Gly-93 Mutants of Superoxide Dismutase. <i>Journal of Biological Chemistry</i> , 2006, 281, 6184-6193.	1.6	69
21	Structural Insights into Mitochondrial Calcium Uniporter Regulation by Divalent Cations. <i>Cell Chemical Biology</i> , 2016, 23, 1157-1169.	2.5	65
22	Mechanism and Thermodynamics of Guanidinium Chloride-induced Denaturation of ALS-associated Mutant Cu,Zn Superoxide Dismutases. <i>Journal of Molecular Biology</i> , 2006, 355, 106-123.	2.0	64
23	Membrane-Dependent Modulation of the mTOR Activator Rheb: NMR Observations of a GTPase Tethered to a Lipid-Bilayer Nanodisc. <i>Journal of the American Chemical Society</i> , 2013, 135, 3367-3370.	6.6	64
24	ORAI1 mutations abolishing store-operated Ca <sup>2+</sup> entry cause anhidrotic ectodermal dysplasia with immunodeficiency. <i>Journal of Allergy and Clinical Immunology</i> , 2018, 142, 1297-1310.e11.	1.5	62
25	Calmodulin and STIM proteins: Two major calcium sensors in the cytoplasm and endoplasmic reticulum. <i>Biochemical and Biophysical Research Communications</i> , 2015, 460, 5-21.	1.0	61
26	Structural insights into endoplasmic reticulum stored calcium regulation by inositol 1,4,5-trisphosphate and ryanodine receptors. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2015, 1853, 1980-1991.	1.9	57
27	Ryanodine receptor calcium release channels: lessons from structureâ€“function studies. <i>FEBS Journal</i> , 2013, 280, 5456-5470.	2.2	54
28	Molecular nature and physiological role of the mitochondrial calcium uniporter channel. <i>American Journal of Physiology - Cell Physiology</i> , 2021, 320, C465-C482.	2.1	54
29	Missense mutation in immunodeficient patients shows the multifunctional roles of coiled-coil domain 3 (CC3) in STIM1 activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 6206-6211.	3.3	52
30	Equilibrium Thermodynamic Analysis of Amyotrophic Lateral Sclerosis-Associated Mutant Apo Cu,Zn Superoxide Dismutasesâ€™. <i>Biochemistry</i> , 2006, 45, 7366-7379.	1.2	47
31	Nonamyloid Aggregates Arising from Mature Copper/Zinc Superoxide Dismutases Resemble Those Observed in Amyotrophic Lateral Sclerosis. <i>Journal of Biological Chemistry</i> , 2010, 285, 41701-41711.	1.6	47
32	Energetics of oligomeric protein folding and association. <i>Archives of Biochemistry and Biophysics</i> , 2013, 531, 44-64.	1.4	47
33	A dual mechanism promotes switching of the Stormorken STIM1 R304W mutant into the activated state. <i>Nature Communications</i> , 2018, 9, 825.	5.8	45
34	Store operated calcium entry: From concept to structural mechanisms. <i>Cell Calcium</i> , 2017, 63, 3-7.	1.1	39
35	Type 2 Ryanodine Receptor Domain A Contains a Unique and Dynamic Î±-Helix That Transitions to a Î²-Strand in a Mutant Linked with a Heritable Cardiomyopathy. <i>Journal of Molecular Biology</i> , 2013, 425, 4034-4046.	2.0	38
36	Intracellular calcium channels: Inositol-1,4,5-trisphosphate receptors. <i>European Journal of Pharmacology</i> , 2014, 739, 39-48.	1.7	38

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37	CaBP1, a neuronal Ca <sup>2+</sup> sensor protein, inhibits inositol trisphosphate receptors by clamping intersubunit interactions. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8507-8512.	3.3	37
38	Sequential activation of STIM1 links Ca <sup>2+</sup> with luminal domain unfolding. Science Signaling, 2019, 12, .	1.6	32
39	Structural elements of stromal interaction molecule function. Cell Calcium, 2018, 73, 88-94.	1.1	30
40	Structural aspects of calcium-release activated calcium channel function. Channels, 2013, 7, 344-353.	1.5	29
41	STIM1-mediated calcium influx controls antifungal immunity and the metabolic function of non-pathogenic Th17 cells. EMBO Molecular Medicine, 2020, 12, e11592.	3.3	26
42	Partial unfolding and oligomerization of stromal interaction molecules as an initiation mechanism of store operated calcium entry This paper is one of a selection of papers published in this special issue entitled "Canadian Society of Biochemistry, Molecular & Cellular Biology 52nd Annual Meeting" Protein Folding: Principles and Diseases and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2010, 88, 175-183.	0.9	25
43	Mitochondrial Ca <sup>2+</sup> transport in the endothelium: regulation by ions, redox signalling and mechanical forces. Journal of the Royal Society Interface, 2017, 14, 20170672.	1.5	25
44	Structure and Function of Endoplasmic Reticulum STIM Calcium Sensors. Current Topics in Membranes, 2013, 71, 59-93.	0.5	24
45	Molecular basis for activation and biased signaling at the thrombin-activated GPCR proteinase activated receptor-4 (PAR4). Journal of Biological Chemistry, 2020, 295, 2520-2540.	1.6	24
46	Themes and Variations in ER/SR Calcium Release Channels: Structure and Function. Physiology, 2012, 27, 331-342.	1.6	23
47	Structurally delineating stromal interaction molecules as the endoplasmic reticulum calcium sensors and regulators of calcium release-activated calcium entry. Immunological Reviews, 2009, 231, 113-131.	2.8	21
48	S-Nitrosylation of STIM1 by Neuronal Nitric Oxide Synthase Inhibits Store-Operated Ca <sup>2+</sup> Entry. Journal of Molecular Biology, 2018, 430, 1773-1785.	2.0	21
49	Molecular Mechanisms of Leucine Zipper EF-Hand Containing Transmembrane Protein-1 Function in Health and Disease. International Journal of Molecular Sciences, 2019, 20, 286.	1.8	20
50	Structural perturbations induced by Asn131 and Asn171 glycosylation converge within the EFSAM core and enhance stromal interaction molecule-1 mediated store operated calcium entry. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 1054-1063.	1.9	19
51	Non-linear Effects of Temperature and Urea on the Thermodynamics and Kinetics of Folding and Unfolding of Hisactophilin. Journal of Molecular Biology, 2004, 344, 1089-1107.	2.0	16
52	A charge-sensing region in the stromal interaction molecule 1 luminal domain confers stabilization-mediated inhibition of SOCE in response to S-nitrosylation. Journal of Biological Chemistry, 2018, 293, 8900-8911.	1.6	16
53	Folding and Association of Thermophilic Dimeric and Trimeric DsrEFH Proteins: Tm0979 and Mth1491. Biochemistry, 2009, 48, 2891-2906.	1.2	12
54	Coordination of a Single Calcium Ion in the EF-hand Maintains the Off State of the Stromal Interaction Molecule Luminal Domain. Journal of Molecular Biology, 2020, 432, 367-383.	2.0	12

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55	Phosphorylation-mediated structural changes within the SOAR domain of stromal interaction molecule 1 enable specific activation of distinct Orai channels. <i>Journal of Biological Chemistry</i> , 2018, 293, 3145-3155.	1.6	11
56	Regulation of Ca <sup>2+</sup> exchanges and signaling in mitochondria. <i>Current Opinion in Physiology</i> , 2020, 17, 197-206.	0.9	11
57	<i>Atp2c2</i> Is Transcribed From a Unique Transcriptional Start Site in Mouse Pancreatic Acinar Cells. <i>Journal of Cellular Physiology</i> , 2016, 231, 2768-2778.	2.0	9
58	The 2 <sup>1</sup> 2 Splice Variation Alters the Structure and Function of the Stromal Interaction Molecule Coiled-Coil Domains. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3316.	1.8	9
59	Taking the good out of the bad: lentiviral-based gene therapy of the hemoglobinopathies. <i>Biotechnology Advances</i> , 2003, 21, 513-526.	6.0	8
60	A novel member of the YchN-like fold: Solution structure of the hypothetical protein Tm0979 from <i>Thermotoga maritima</i> . <i>Protein Science</i> , 2009, 14, 216-223.	3.1	8
61	From Stores to Sinks: Structural Mechanisms of Cytosolic Calcium Regulation. <i>Advances in Experimental Medicine and Biology</i> , 2017, 981, 215-251.	0.8	8
62	The pancreas-specific form of secretory pathway calcium ATPase 2 regulates multiple pathways involved in calcium homeostasis. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2020, 1867, 118567.	1.9	8
63	Differential Domain Distribution of gnomAD- and Disease-Linked Connexin Missense Variants. <i>International Journal of Molecular Sciences</i> , 2021, 22, 7832.	1.8	7
64	An Amino Acid Polymorphism within the HIV-1 Nef Dileucine Motif Functionally Uncouples Cell Surface CD4 and SERINC5 Downregulation. <i>Journal of Virology</i> , 2021, 95, e0058821.	1.5	6
65	The STIM-Orai Pathway: STIM-Orai Structures: Isolated and in Complex. <i>Advances in Experimental Medicine and Biology</i> , 2017, 993, 15-38.	0.8	5
66	Does stromal interaction molecule-1 have five senses?. <i>Cell Calcium</i> , 2019, 77, 79-80.	1.1	5
67	Structural Mechanisms of Store-Operated and Mitochondrial Calcium Regulation: Initiation Points for Drug Discovery. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3642.	1.8	5
68	Secretion of human superoxide dismutase in <i>Escherichia coli</i> using the condensed singleâ€proteinâ€production system. <i>Protein Science</i> , 2010, 19, 2330-2335.	3.1	4
69	Synergistic stabilization by nitrosoglutathione-induced thiol modifications in the stromal interaction molecule-2 luminal domain suppresses basal and store operated calcium entry. <i>Scientific Reports</i> , 2020, 10, 10177.	1.6	4
70	The p.E152K-STIM1 mutation deregulates Ca <sup>2+</sup> signaling contributing to chronic pancreatitis. <i>Journal of Cell Science</i> , 2021, 134, .	1.2	4
71	The leucine zipper EFâ€hand containing transmembrane proteinâ€1 EFâ€hand is a tripartite calcium, temperature, and pH sensor. <i>Protein Science</i> , 2021, 30, 855-872.	3.1	3
72	Identification of Critical MCUR1 Domains in the Mitochondrial Calcium Uniporter Complex that Regulates Cellular Metabolism. <i>FASEB Journal</i> , 2020, 34, 1-1.	0.2	2

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73	Structural aspects of calcium-binding proteins and their interactions with targets. <i>New Comprehensive Biochemistry</i> , 2007, , 95-123.	0.1	1
74	Targeting Cysteine Thiols for <i>in Vitro</i> Site-specific Glycosylation of Recombinant Proteins. <i>Journal of Visualized Experiments</i> , 2017, , .	0.2	1
75	Cholesterol Regulates Orai1 Function. <i>Biophysical Journal</i> , 2014, 106, 317a.	0.2	0
76	Themes and Variations in Endoplasmic Reticulum Calcium Release Channels: Structure and Function. <i>Seibutsu Butsuri</i> , 2012, 52, 266-271.	0.0	0