Philip A Gottlieb

List of Publications by Year
in descending order

70 papers	4,771 citations	117625 34 h-index	98798 67 g-index
70 all docs	70 docs citations	70 times ranked	4199 citing authors

#	Article	IF	Citations
1	Removal of the mechanoprotective influence of the cytoskeleton reveals PIEZO1 is gated by bilayer tension. Nature Communications, 2016, 7, 10366.	12.8	391
2	The Mechanosensitive Ion Channel Piezo1 Is Inhibited by the Peptide GsMTx4. Biochemistry, 2011, 50, 6295-6300.	2.5	376
3	Enhancement of phagocytosis â€" A newly found activity of Substance P residing in its N-terminal tetrapeptide sequence. Biochemical and Biophysical Research Communications, 1980, 94, 1445-1451.	2.1	303
4	Bilayer-dependent inhibition of mechanosensitive channels by neuroactive peptide enantiomers. Nature, 2004, 430, 235-240.	27.8	271
5	Xerocytosis is caused by mutations that alter the kinetics of the mechanosensitive channel PIEZO1. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E1162-8.	7.1	261
6	Effects of stretchâ€activated channel blockers on [Ca²⁺]_i and muscle damage in the <i>mdx</i> mouse. Journal of Physiology, 2005, 562, 367-380.	2.9	245
7	Revisiting TRPC1 and TRPC6 mechanosensitivity. Pflugers Archiv European Journal of Physiology, 2008, 455, 1097-1103.	2.8	229
8	Gating the mechanical channel Piezo1. Channels, 2012, 6, 282-289.	2.8	168
9	Mechanosensitive ion channels and the peptide inhibitor GsMTx-4: History, properties, mechanisms and pharmacology. Toxicon, 2007, 49, 249-270.	1.6	161
10	On-chip microfluidic biosensor for bacterial detection and identification. Sensors and Actuators B: Chemical, 2007, 126, 508-514.	7.8	155
11	Ca2+ Influx through Mechanosensitive Channels Inhibits Neurite Outgrowth in Opposition to Other Influx Pathways and Release from Intracellular Stores. Journal of Neuroscience, 2006, 26, 5656-5664.	3.6	126
12	Ionic Selectivity and Permeation Properties of Human PIEZO1 Channels. PLoS ONE, 2015, 10, e0125503.	2.5	125
13	Mechanosensitive ion channel Piezo2 is important for enterochromaffin cell response to mechanical forces. Journal of Physiology, 2017, 595, 79-91.	2.9	121
14	Mechanosensitive TRPC1 Channels Promote Calpain Proteolysis of Talin to Regulate Spinal Axon Outgrowth. Journal of Neuroscience, 2013, 33, 273-285.	3.6	120
15	Piezo1. Channels, 2012, 6, 214-219.	2.8	103
16	Disruption of membrane cholesterol organization impairs the activity of PIEZO1 channel clusters. Journal of General Physiology, 2020, 152, .	1.9	98
17	Solution Structure of Peptide Toxins That Block Mechanosensitive Ion Channels. Journal of Biological Chemistry, 2002, 277, 34443-34450.	3.4	88
18	Tuftsin, Thr-Lys-Pro-Arg. Molecular and Cellular Biochemistry, 1981, 41, 73-97.	3.1	78

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19	cDNA sequence and in vitro folding of GsMTx4, a specific peptide inhibitor of mechanosensitive channels. Toxicon, 2003, 42, 263-274.	1.6	74
20	Human PIEZO1: Removing Inactivation. Biophysical Journal, 2013, 105, 880-886.	0.5	64
21	The slow force response to stretch in atrial and ventricular myocardium from human heart: Functional relevance and subcellular mechanisms. Progress in Biophysics and Molecular Biology, 2008, 97, 250-267.	2.9	60
22	Specific binding sites for the phagocytosis stimulating peptide tuftsin on human polymorphonuclear leukocytes and monocytes. Biochemical and Biophysical Research Communications, 1978, 83, 599-606.	2.1	59
23	Mechanosensitive ion channel Piezo2 is inhibited by D-GsMTx4. Channels, 2017, 11, 245-253.	2.8	55
24	A mechanosensitive ion channel regulating cell volume. American Journal of Physiology - Cell Physiology, 2010, 298, C1424-C1430.	4.6	52
25	Protonation of the Human PIEZO1 Ion Channel Stabilizes Inactivation. Journal of Biological Chemistry, 2015, 290, 5167-5173.	3.4	52
26	Enantiomeric AÎ² peptides inhibit the fluid shear stress response of PIEZO1. Scientific Reports, 2018, 8, 14267.	3.3	52
27	Neurite outgrowth from PC12 cells is enhanced by an inhibitor of mechanical channels. Neuroscience Letters, 2010, 481, 115-119.	2.1	51
28	Hypoxia Activates a Ca2+-Permeable Cation Conductance Sensitive to Carbon Monoxide and to GsMTx-4 in Human and Mouse Sickle Erythrocytes. PLoS ONE, 2010, 5, e8732.	2.5	50
29	Hereditary xerocytosis revisited. American Journal of Hematology, 2014, 89, 1142-1146.	4.1	47
30	Is Lipid Bilayer Binding a Common Property of Inhibitor Cysteine Knot Ion-Channel Blockers?. Biophysical Journal, 2007, 93, L20-L22.	0.5	46
31	Binding of the Priming Nucleotide in the Initiation of Transcription by T7 RNA Polymerase. Journal of Biological Chemistry, 2003, 278, 2819-2823.	3.4	43
32	Volume Cytometry:Â Microfluidic Sensor for High-Throughput Screening in Real Time. Analytical Chemistry, 2005, 77, 1290-1294.	6.5	43
33	Mechanosensitive Ion Channels as Drug Targets. CNS and Neurological Disorders, 2004, 3, 287-295.	4.3	40
34	Effects of GsMTx4 on Bacterial Mechanosensitive Channels in Inside-Out Patches from Giant Spheroplasts. Biophysical Journal, 2010, 99, 2870-2878.	0.5	39
35	Shear stress induced nuclear shrinkage through activation of Piezo1 channels in epithelial cells. Journal of Cell Science, 2019, 132, .	2.0	32
36	Probing the TRAPâ€"RNA interaction with nucleoside analogs. Rna, 1999, 5, 1277-1289.	3.5	31

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37	Small Quantum Dots Conjugated to Nanobodies as Immunofluorescence Probes for Nanometric Microscopy. Bioconjugate Chemistry, 2014, 25, 2205-2211.	3.6	29
38	The mechanism of RNA binding to TRAP: Initiation and cooperative interactions. Rna, 2001, 7, 85-93.	3.5	28
39	Concentration dependent effect of GsMTx4 on mechanosensitive channels of small conductance in E. coli spheroplasts. European Biophysics Journal, 2009, 38, 415-425.	2.2	26
40	Amphipathic molecules modulate PIEZO1 activity. Biochemical Society Transactions, 2019, 47, 1833-1842.	3.4	26
41	A sequence element necessary for self-cleavage of the antigenomic hepatitis delta RNA in 20 M formamide. Biochemistry, 1992, 31, 9629-9635.	2.5	22
42	Properties and Mechanism of the Mechanosensitive Ion Channel Inhibitor GsMTx4, a Therapeutic Peptide Derived from Tarantula Venom. Current Topics in Membranes, 2007, 59, 81-109.	0.9	22
43	Angiotensin II and myosin light-chain phosphorylation contribute to the stretch-induced slow force response in human atrial myocardium. Cardiovascular Research, 2008, 79, 642-651.	3.8	22
44	RNA Structure Inhibits the TRAP (rp RNA-binding AttenuationProtein)-RNA Interaction. Journal of Biological Chemistry, 1998, 273, 27146-27153.	3.4	21
45	Tuftsin Receptors. Annals of the New York Academy of Sciences, 1983, 419, 93-106.	3.8	19
46	Tuftsin Analogs for Probing Its Specific Receptor Site on Phagocytic Cells. FEBS Journal, 1982, 125, 631-638.	0.2	18
47	Receptor-mediated endocytosis of tuftsin by macrophage cells. Biochemical and Biophysical Research Communications, 1984, 119, 203-211.	2.1	18
48	Thermodynamic and alkylation interference analysis of the lac repressor-operator substituted with the analog 7-deazaguanine. Biochemistry, 1993, 32, 11374-11384.	2.5	17
49	Binding studies of SV40 T-antigen to SV40 binding site II. Nucleic Acids Research, 1985, 13, 6621-6634.	14.5	16
50	The sensation of stretch. Nature, 2012, 483, 163-164.	27.8	15
51	The phagocytosis stimulating peptide tuftsin: Further look into structure-function relationships. Molecular and Cellular Biochemistry, 1980, 30, 165-70.	3.1	14
52	Tuftsin, Thr-Lys-Pro-Arg. , 1981, , 73-97.		14
53	Using Modified Nucleotides to Map the DNA Determinants of the Tus-TerB Complex, the Protein-DNA Interaction Associated with Termination of Replication in Escherichia coli. Journal of Biological Chemistry, 1995, 270, 28049-28054.	3.4	13
54	Modified nucleotides reveal the indirect role of the central base pairs in stabilizing thelacrepressor-operator complex. Nucleic Acids Research, 1995, 23, 1502-1511.	14.5	12

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55	Quenching-enhanced fluorescence titration protocol for accurate determination of free energy of membrane binding. Analytical Biochemistry, 2007, 362, 290-292.	2.4	12
56	Human PIEZO1 Ion Channel Functions as a Split Protein. PLoS ONE, 2016, 11, e0151289.	2.5	12
57	CD and DNA binding studies of a proline repeat-containing segment of the replication arrest protein Tus. Nucleic Acids Research, 1994, 22, 5024-5030.	14.5	10
58	Single substitutions of phosphorothioates in the HDV ribozyme G73 define regions necessary for optimal self-cleaving activity. Nucleic Acids Research, 1997, 25, 5119-5124.	14.5	10
59	Increased Red Cell KCNN4 Activity in Sporadic Hereditary Xerocytosis Associated With Enhanced Single Channel Pressure Sensitivity of PIEZO1ÂMutant V598M. HemaSphere, 2018, 2, e55.	2.7	10
60	Peptide fragments from the tuftsin containing domain of immunoglobulin G synthesis and biological activity. Biochemical and Biophysical Research Communications, 1983, 115, 193-200.	2.1	9
61	Loading Dyes Used in Gel Electrophoresis Alter the Apparent Thermodynamic Equilibrium of the lac Repressor-Operator Complex. Analytical Biochemistry, 1993, 214, 580-582.	2.4	7
62	Substrate-mediated channeling of a chemical reagent to the active site of cAMP-dependent protein kinase. FEBS Letters, 1981, 130, 127-132.	2.8	6
63	Synthetic Pathways to Tuftsin and Radioimmunoassay. Annals of the New York Academy of Sciences, 1983, 419, 12-22.	3.8	6
64	The Tuftsin Receptors. , 1986, , 243-280.		6
65	Identification of a Tus Protein Segment That Photo-Cross-Links withTerBDNA and Elucidation of the Role of Certain Thymine Methyl Groups in the Tusâˆ'TerBComplex Using Halogenated Uracil Analogues. Biochemistry, 1996, 35, 15391-15396.	2.5	5
66	Functional analyses of heteromeric human PIEZO1 Channels. PLoS ONE, 2018, 13, e0207309.	2.5	5
67	Tuftsin Binding to Various Macrophage Hybridomas. Annals of the New York Academy of Sciences, 1983, 419, 107-113.	3.8	4
68	Evidence that total substitution of adenine with 7-deazaadenine in the HDV antigenomic ribozyme changes the kinetics of RNA folding. Bioorganic and Medicinal Chemistry Letters, 1994, 4, 987-994.	2.2	4
69	Using Nucleotide Analogs to Probe Protein-RNA Interactions. Methods, 2001, 23, 255-263.	3.8	2
70	Surface functionalization of a microfluidic biosensor for bacteria detection and identification. , 2007, , .		2