Mary H Cheng

List of Publications by Year
in descending order

67 papers	2,388 citations	236912 25 h-index	233409 45 g-index
75 all docs	75 docs citations	75 times ranked	3446 citing authors

#	Article	IF	Citations
1	Impact of new variants on SARS-CoV-2 infectivity and neutralization: A molecular assessment of the alterations in the spike-host protein interactions. IScience, 2022, 25, 103939.	4.1	32
2	Allosteric Modulator KM822 Attenuates Behavioral Actions of Amphetamine in <i>Caenorhabditis elegans</i> through Interactions with the Dopamine Transporter DAT-1. Molecular Pharmacology, 2022, 101, 123-131.	2.3	4
3	A network of phosphatidylinositol (4,5)-bisphosphate (PIP2) binding sites on the dopamine transporter regulates amphetamine behavior in Drosophila Melanogaster. Molecular Psychiatry, 2021, 26, 4417-4430.	7.9	26
4	COVID-19â€"associated multisystem inflammatory syndrome in children (MIS-C): AÂnovel disease that mimics toxic shock syndromeâ€"the superantigen hypothesis. Journal of Allergy and Clinical Immunology, 2021, 147, 57-59.	2.9	87
5	Direct coupling of oligomerization and oligomerization-driven endocytosis of the dopamine transporter to its conformational mechanics and activity. Journal of Biological Chemistry, 2021, 296, 100430.	3.4	9
6	HLA class Iâ€"associated expansion of TRBV11-2 T cells in multisystem inflammatory syndrome in children. Journal of Clinical Investigation, 2021, 131, .	8.2	130
7	Psychomotor impairments and therapeutic implications revealed by a mutation associated with infantile Parkinsonism-Dystonia. ELife, 2021, 10, .	6.0	13
8	Functional Characterization of the Dopaminergic Psychostimulant Sydnocarb as an Allosteric Modulator of the Human Dopamine Transporter. Biomedicines, 2021, 9, 634.	3.2	9
9	A systemsâ€level study reveals hostâ€targeted repurposable drugs against SARSâ€CoVâ€2 infection. Molecular Systems Biology, 2021, 17, e10239.	7.2	22
10	A monoclonal antibody against staphylococcal enterotoxin B superantigen inhibits SARS-CoV-2 entry inÂvitro. Structure, 2021, 29, 951-962.e3.	3.3	28
11	Bile Acids Gate Dopamine Transporter Mediated Currents. Frontiers in Chemistry, 2021, 9, 753990.	3.6	6
12	Regulation of CFTR Bicarbonate Channel Activity by WNK1: Implications for Pancreatitis and CFTR-Related Disorders. Cellular and Molecular Gastroenterology and Hepatology, 2020, 9, 79-103.	4.5	27
13	Superantigenic character of an insert unique to SARS-CoV-2 spike supported by skewed TCR repertoire in patients with hyperinflammation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 25254-25262.	7.1	252
14	Bicarbonate permeation through anion channels: its role in health and disease. Pflugers Archiv European Journal of Physiology, 2020, 472, 1003-1018.	2.8	8
15	Dynamic Regulation of Bicarbonate Permeability through CFTR Channel by WNK1. Biophysical Journal, 2020, 118, 416a.	0.5	0
16	Monoamine transporters: structure, intrinsic dynamics and allosteric regulation. Nature Structural and Molecular Biology, 2019, 26, 545-556.	8.2	68
17	Trimerization of dopamine transporter triggered by AIM-100 binding: Molecular mechanism and effect of mutations. Neuropharmacology, 2019, 161, 107676.	4.1	9
18	Quantitative Assessment of the Energetics of Dopamine Translocation by Human Dopamine Transporter. Journal of Physical Chemistry B, 2018, 122, 5336-5346.	2.6	25

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19	PINK1 Interacts with VCP/p97 and Activates PKA to Promote NSFL1C/p47 Phosphorylation and Dendritic Arborization in Neurons. ENeuro, 2018, 5, ENEURO.0466-18.2018.	1.9	34
20	Key residues controlling bidirectional ion movements in Na+/Ca2+ exchanger. Cell Calcium, 2018, 76, 10-22.	2.4	20
21	Shared dynamics of LeuT superfamily members and allosteric differentiation by structural irregularities and multimerization. Philosophical Transactions of the Royal Society B: Biological Sciences, 2018, 373, 20170177.	4.0	24
22	Heterogeneities in Axonal Structure and Transporter Distribution Lower Dopamine Reuptake Efficiency. ENeuro, 2018, 5, ENEURO.0298-17.2017.	1.9	10
23	Effect of Dimerization on the Dynamics of Neurotransmitter:Sodium Symporters. Journal of Physical Chemistry B, 2017, 121, 3657-3666.	2.6	20
24	Allosteric modulation of human dopamine transporter activity under conditions promoting its dimerization. Journal of Biological Chemistry, 2017, 292, 12471-12482.	3.4	23
25	Importance of Dimerization in Facilitating the Functional Dynamics of Neurotransmitter: Sodium Symporters. Biophysical Journal, 2017, 112, 506a.	0.5	0
26	Effect of Spatial Complexity on Dopaminergic Signaling Revealed from Multiscale Simulations. Biophysical Journal, 2017, 112, 135a.	0.5	0
27	Targeting of dopamine transporter to filopodia requires an outward-facing conformation of the transporter. Scientific Reports, 2017, 7, 5399.	3.3	16
28	Substrate transport and anion permeation proceed through distinct pathways in glutamate transporters. ELife, 2017, 6, .	6.0	26
29	Pore dilatation increases the bicarbonate permeability of CFTR, ANO1 and glycine receptor anion channels. Journal of Physiology, 2016, 594, 2929-2955.	2.9	30
30	Visualization of Molecular Events from Dopamine-Binding to -Release by Human Dopamine Transporter. Biophysical Journal, 2015, 108, 462a.	0.5	0
31	Energy landscape of LeuT from molecular simulations. Journal of Chemical Physics, 2015, 143, 243134.	3.0	34
32	Insights into the Modulation of Dopamine Transporter Function by Amphetamine, Orphenadrine, and Cocaine Binding. Frontiers in Neurology, 2015, 6, 134.	2.4	64
33	Structure-Encoded Global Motions and Their Role in Mediating Protein-Substrate Interactions. Biophysical Journal, 2015, 109, 1101-1109.	0.5	55
34	Molecular Mechanism of Dopamine Transport by Human Dopamine Transporter. Structure, 2015, 23, 2171-2181.	3.3	81
35	Exploring the Conformational Transitions of Biomolecular Systems Using a Simple Two-State Anisotropic Network Model. PLoS Computational Biology, 2014, 10, e1003521.	3.2	112
36	Complete Mapping of Substrate Translocation Highlights the Role of LeuT N-terminal Segment in Regulating Transport Cycle. PLoS Computational Biology, 2014, 10, e1003879.	3.2	71

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37	Complete Mapping of Substrate Translocation Implicates the Secondary Binding Site and Highlights the Significance of LeuT N-Terminal Segment in Regulating Transport Cycle. Biophysical Journal, 2014, 106, 364a.	0.5	0
38	Coupled Global and Local Changes Direct Substrate Translocation byÂNeurotransmitter-Sodium Symporter Ortholog LeuT. Biophysical Journal, 2013, 105, 630-639.	0.5	65
39	Does Symmetry of Ligand Occupancy Matter to Conformational Transitions of Pentameric Ligand Gated Ion Channels?. Biophysical Journal, 2013, 104, 380a.	0.5	0
40	Asymmetric Ligand Binding Facilitates Conformational Transitions in Pentameric Ligand-Gated Ion Channels. Journal of the American Chemical Society, 2013, 135, 2172-2180.	13.7	43
41	Reversal of ion-charge selectivity renders the pentameric ligand-gated ion channel GLIC insensitive to anaesthetics. Biochemical Journal, 2013, 449, 61-68.	3.7	12
42	Energetics and Ion permeation Characteristics in a Glutamate-Gated Chloride (GluCl) Receptor Channel. Journal of Physical Chemistry B, 2012, 116, 13637-13643.	2.6	21
43	Molecular Dynamics Investigation of Clâˆ' and Water Transport through a Eukaryotic CLC Transporter. Biophysical Journal, 2012, 102, 1363-1371.	0.5	36
44	Discrete-State Representation of Ion Permeation Coupled to Fast Gating in a Model of CLC-Chloride Channels: Analytic Estimation of the State-to-State Rate Constants. Journal of Physical Chemistry A, 2011, 115, 9633-9642.	2.5	9
45	Calcium Inhibits Paracellular Sodium Conductance through Claudin-2 by Competitive Binding. Journal of Biological Chemistry, 2010, 285, 37060-37069.	3.4	34
46	Molecular Dynamics Investigation of Anesthetic Halothane Interactions with the Proton-Gated Ion Channel GLIC. Biophysical Journal, 2010, 98, 703a.	0.5	0
47	Molecular Dynamics and Brownian Dynamics Investigation of Ion Permeation and Anesthetic Halothane Effects on a Proton-Gated Ion Channel. Journal of the American Chemical Society, 2010, 132, 16442-16449.	13.7	44
48	Anesthetic Binding in a Pentameric Ligand-Gated Ion Channel: GLIC. Biophysical Journal, 2010, 99, 1801-1809.	0.5	43
49	Discrete-State Representation of Ion Permeation Coupled to Fast Gating in a Model of ClC Chloride Channels: Comparison to Multi-ion Continuous Space Brownian Dynamics Simulations. Journal of Physical Chemistry B, 2010, 114, 1424-1433.	2.6	14
50	Multisite Binding of Anesthetics to GLIC, a Pentameric Ligand-Gated Ion Channel. Biophysical Journal, 2010, 98, 702a-703a.	0.5	1
51	Molecular Basis for Cation Selectivity in Claudin-2â€"based Paracellular Pores: Identification of an Electrostatic Interaction Site. Journal of General Physiology, 2009, 133, 111-127.	1.9	273
52	Anionic Lipid and Cholesterol Interactions with Î±4Î²2 nAChR: Insights from MD Simulations. Journal of Physical Chemistry B, 2009, 113, 6964-6970.	2.6	25
53	Interactions between POPA and a4b2 nAChR: Insight from MD Simulations. Biophysical Journal, 2009, 96, 610a.	0.5	0
54	Molecular Basis for Cation Selectivity in Claudin-2â€"based Paracellular Pores: Identification of an Electrostatic Interaction Site. Journal of Cell Biology, 2009, 184, i3-i3.	5.2	0

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55	Computational prediction of ion permeation characteristics in the glycine receptor modified by photo-sensitive compounds. Journal of Computer-Aided Molecular Design, 2008, 22, 563-570.	2.9	2
56	Molecular dynamics simulations of ethanol binding to the transmembrane domain of the glycine receptor: Implications for the channel potentiation mechanism. Proteins: Structure, Function and Bioinformatics, 2008, 71, 972-981.	2.6	21
57	<i>In Silico</i>Models for the Human Î±4Î²2 Nicotinic Acetylcholine Receptor. Journal of Physical Chemistry B, 2008, 112, 13981-13990.	2.6	44
58	Modeling the Fast Gating Mechanism in the ClC-0 Chloride Channel. Journal of Physical Chemistry B, 2007, 111, 5956-5965.	2.6	23
59	Molecular Dynamics Simulations of Ternary Membrane Mixture:â€‰ Phosphatidylcholine, Phosphatidic Acid, and Cholesterol. Journal of Physical Chemistry B, 2007, 111, 14186-14192.	2.6	29
60	Homology modeling and molecular dynamics simulations of the Î±1 glycine receptor reveals different states of the channel. Proteins: Structure, Function and Bioinformatics, 2007, 68, 581-593.	2.6	33
61	An Accurate and Efficient Empirical Approach for Calculating the Dielectric Self-Energy and Ionâˆ’Ion Pair Potential in Continuum Models of Biological Ion Channels. Journal of Physical Chemistry B, 2005, 109, 488-498.	2.6	35
62	Theoretical Studies of the M2 Transmembrane Segment of the Glycine Receptor: Models of the Open Pore Structure and Current-Voltage Characteristics. Biophysical Journal, 2005, 89, 1669-1680.	0.5	24
63	Phase ripening in particulate binary polymer blends. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 603-612.	2.1	11
64	Non-linear diffusion with concentration-driven flows in miscible systems. Polymer, 2003, 44, 6707-6712.	3.8	5
65	Modeling reactive compatibilization of a binary blend with interacting particles. Journal of Chemical Physics, 2003, 118, 9044-9052.	3.0	12
66	Impact of New Variants on SAR-CoV-2 Infectivity and Neutralization: A Molecular Assessment of the Alterations in the Spike-Host Protein Interactions. SSRN Electronic Journal, 0, , .	0.4	3
67	Multisystem Inflammatory Syndrome in Children and Long COVID: The SARS-CoV-2 Viral Superantigen Hypothesis. Frontiers in Immunology, 0, 13, .	4.8	56