

Lonnie P Wollmuth

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6309532/publications.pdf>

Version: 2024-02-01

61
papers

6,333
citations

136950

32
h-index

133252

59
g-index

67
all docs

67
docs citations

67
times ranked

6229
citing authors

#	ARTICLE	IF	CITATIONS
1	Glutamate Receptor Ion Channels: Structure, Regulation, and Function. <i>Pharmacological Reviews</i> , 2010, 62, 405-496.	16.0	2,973
2	Structure, function, and allosteric modulation of NMDA receptors. <i>Journal of General Physiology</i> , 2018, 150, 1081-1105.	1.9	363
3	Structure, Function, and Pharmacology of Glutamate Receptor Ion Channels. <i>Pharmacological Reviews</i> , 2021, 73, 1469-1658.	16.0	237
4	Structure of the NMDA Receptor Channel M2 Segment Inferred from the Accessibility of Substituted Cysteines. <i>Neuron</i> , 1996, 17, 343-352.	8.1	220
5	Structure and gating of the glutamate receptor ion channel. <i>Trends in Neurosciences</i> , 2004, 27, 321-328.	8.6	193
6	Adjacent asparagines in the NR2-subunit of the NMDA receptor channel control the voltage-dependent block by extracellular Mg ²⁺ . <i>Journal of Physiology</i> , 1998, 506, 13-32.	2.9	132
7	An inter-dimer allosteric switch controls NMDA receptor activity. <i>EMBO Journal</i> , 2019, 38, .	7.8	111
8	Molecular Rearrangements of the Extracellular Vestibule in NMDAR Channels during Gating. <i>Neuron</i> , 2002, 33, 75-85.	8.1	103
9	Facilitation of currents through rat Ca ²⁺ -permeable AMPA receptor channels by activity-dependent relief from polyamine block. <i>Journal of Physiology</i> , 1998, 511, 361-377.	2.9	101
10	Mechanical coupling maintains the fidelity of NMDA receptor-mediated currents. <i>Nature Neuroscience</i> , 2014, 17, 914-922.	14.8	96
11	Arrangement of Subunits in Functional NMDA Receptors. <i>Journal of Neuroscience</i> , 2011, 31, 11295-11304.	3.6	92
12	The Outer Pore of the Glutamate Receptor Channel Has 2-Fold Rotational Symmetry. <i>Neuron</i> , 2004, 41, 367-378.	8.1	88
13	Block of AMPA Receptor Desensitization by a Point Mutation outside the Ligand-Binding Domain. <i>Journal of Neuroscience</i> , 2004, 24, 4728-4736.	3.6	86
14	Subunit-specific Contribution of Pore-forming Domains to NMDA Receptor Channel Structure and Gating. <i>Journal of General Physiology</i> , 2007, 129, 509-525.	1.9	82
15	The Lurcher Mutation Identifies $\hat{2}$ as an AMPA/Kainate Receptor-Like Channel That Is Potentiated by Ca ²⁺ . <i>Journal of Neuroscience</i> , 2000, 20, 5973-5980.	3.6	79
16	DRPEER: A Motif in the Extracellular Vestibule Conferring High Ca ²⁺ Flux Rates in NMDA Receptor Channels. <i>Journal of Neuroscience</i> , 2002, 22, 10209-10216.	3.6	77
17	Assembly of AMPA receptors: mechanisms and regulation. <i>Journal of Physiology</i> , 2015, 593, 39-48.	2.9	71
18	Voltage and concentration dependence of Ca ²⁺ permeability in recombinant glutamate receptor subtypes. <i>Journal of Physiology</i> , 2002, 538, 25-39.	2.9	66

#	ARTICLE	IF	CITATIONS
19	Different Mechanisms of Ca ²⁺ Transport in NMDA and Ca ²⁺ -permeable AMPA Glutamate Receptor Channels. <i>Journal of General Physiology</i> , 1998, 112, 623-636.	1.9	64
20	Specific Sites within the Ligand-Binding Domain and Ion Channel Linkers Modulate NMDA Receptor Gating. <i>Journal of Neuroscience</i> , 2010, 30, 11792-11804.	3.6	61
21	Different Gating Mechanisms in Glutamate Receptor and K ⁺ Channels. <i>Journal of Neuroscience</i> , 2003, 23, 7559-7568.	3.6	58
22	Gating Modes in AMPA Receptors. <i>Journal of Neuroscience</i> , 2010, 30, 4449-4459.	3.6	58
23	Staggering of Subunits in NMDAR Channels. <i>Biophysical Journal</i> , 2002, 83, 3304-3314.	0.5	56
24	Intracellular Mg ²⁺ interacts with structural determinants of the narrow constriction contributed by the NR1-subunit in the NMDA receptor channel. <i>Journal of Physiology</i> , 1998, 506, 33-52.	2.9	48
25	Asynchronous Movements Prior to Pore Opening in NMDA Receptors. <i>Journal of Neuroscience</i> , 2013, 33, 12052-12066.	3.6	48
26	De novo GRIN variants in NMDA receptor M2 channel pore-forming loop are associated with neurological diseases. <i>Human Mutation</i> , 2019, 40, 2393-2413.	2.5	48
27	Local constraints in either the GluN1 or GluN2 subunit equally impair NMDA receptor pore opening. <i>Journal of General Physiology</i> , 2011, 138, 179-194.	1.9	45
28	Effect of Src Kinase Phosphorylation on Disordered C-terminal Domain of N-Methyl-d-aspartic Acid (NMDA) Receptor Subunit GluN2B Protein. <i>Journal of Biological Chemistry</i> , 2011, 286, 29904-29912.	3.4	44
29	A conserved glycine harboring disease-associated mutations permits NMDA receptor slow deactivation and high Ca ²⁺ permeability. <i>Nature Communications</i> , 2018, 9, 3748.	12.8	43
30	A Molecular Determinant of Subtype-Specific Desensitization in Ionotropic Glutamate Receptors. <i>Journal of Neuroscience</i> , 2016, 36, 2617-2622.	3.6	42
31	Divergent roles of a peripheral transmembrane segment in AMPA and NMDA receptors. <i>Journal of General Physiology</i> , 2017, 149, 661-680.	1.9	41
32	Lupus autoantibodies act as positive allosteric modulators at GluN2A-containing NMDA receptors and impair spatial memory. <i>Nature Communications</i> , 2020, 11, 1403.	12.8	36
33	State-Dependent Changes in the Electrostatic Potential in the Pore of a GluR Channel. <i>Biophysical Journal</i> , 2005, 88, 235-242.	0.5	34
34	From bedside to bench: What disease-associated variants are teaching us about the NMDA receptor. <i>Journal of Physiology</i> , 2021, 599, 397-416.	2.9	34
35	Modulating the Intrinsic Disorder in the Cytoplasmic Domain Alters the Biological Activity of the N-Methyl-d-aspartate-sensitive Glutamate Receptor. <i>Journal of Biological Chemistry</i> , 2013, 288, 22506-22515.	3.4	33
36	Subgroups of parvalbumin-expressing interneurons in layers 2/3 of the visual cortex. <i>Journal of Neurophysiology</i> , 2013, 109, 1600-1613.	1.8	33

#	ARTICLE	IF	CITATIONS
37	Target-Specific Regulation of Synaptic Amplitudes in the Neocortex. <i>Journal of Neuroscience</i> , 2005, 25, 1024-1033.	3.6	32
38	Interaction of the M4 Segment with Other Transmembrane Segments Is Required for Surface Expression of Mammalian \pm -Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid (AMPA) Receptors. <i>Journal of Biological Chemistry</i> , 2011, 286, 40205-40218.	3.4	31
39	A Eukaryotic Specific Transmembrane Segment is Required for Tetramerization in AMPA Receptors. <i>Journal of Neuroscience</i> , 2013, 33, 9840-9845.	3.6	31
40	Ion permeation in ionotropic glutamate receptors: still dynamic after all these years. <i>Current Opinion in Physiology</i> , 2018, 2, 36-41.	1.8	31
41	The Transmembrane Domain Mediates Tetramerization of \pm -Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid (AMPA) Receptors. <i>Journal of Biological Chemistry</i> , 2016, 291, 6595-6606.	3.4	23
42	GluN1-Specific Redox Effects on the Kinetic Mechanism of NMDA Receptor Activation. <i>Biophysical Journal</i> , 2011, 101, 2389-2398.	0.5	21
43	Advancing NMDA Receptor Physiology by Integrating Multiple Approaches. <i>Trends in Neurosciences</i> , 2017, 40, 129-137.	8.6	20
44	Extracellular Vestibule Determinants of Ca ²⁺ Influx in Ca ²⁺ -Permeable AMPA Receptor Channels. <i>Journal of Physiology</i> , 2003, 549, 439-452.	2.9	19
45	NMDA Receptors Require Multiple Pre-opening Gating Steps for Efficient Synaptic Activity. <i>Neuron</i> , 2021, 109, 488-501.e4.	8.1	18
46	A Model to Study NMDA Receptors in Early Nervous System Development. <i>Journal of Neuroscience</i> , 2020, 40, 3631-3645.	3.6	17
47	Synapse-Associated Protein 97 Regulates the Membrane Properties of Fast-Spiking Parvalbumin Interneurons in the Visual Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 12739-12750.	3.6	15
48	The diverse and complex modes of action of anti-NMDA receptor autoantibodies. <i>Neuropharmacology</i> , 2021, 194, 108624.	4.1	15
49	Tracking Newly Released Synaptic Vesicle Proteins at Ribbon Active Zones. <i>iScience</i> , 2019, 17, 10-23.	4.1	13
50	Mechanism-Based Mathematical Model for Gating of Ionotropic Glutamate Receptors. <i>Journal of Physical Chemistry B</i> , 2015, 119, 10934-10940.	2.6	12
51	Expression pattern of membrane-associated guanylate kinases in interneurons of the visual cortex. <i>Journal of Comparative Neurology</i> , 2010, 518, 4842-4854.	1.6	11
52	Input-specific maturation of NMDAR-mediated transmission onto parvalbumin-expressing interneurons in layers 2/3 of the visual cortex. <i>Journal of Neurophysiology</i> , 2018, 120, 3063-3076.	1.8	11
53	Expression and distribution of synaptotagmin family members in the zebrafish retina. <i>Journal of Comparative Neurology</i> , 2022, 530, 705-728.	1.6	4
54	Flip-Flopping to the Membrane. <i>Neuron</i> , 2012, 76, 463-465.	8.1	3

#	ARTICLE	IF	CITATIONS
55	Voltage dependent allosteric modulation of IPSCs by benzodiazepines. Brain Research, 2020, 1736, 146699.	2.2	3
56	Assaying AMPA Receptor Oligomerization. Neuromethods, 2016, , 3-14.	0.3	3
57	Excitatory view of a receptor. Nature, 2009, 462, 729-731.	27.8	1
58	Assaying the Energetics of NMDA Receptor Pore Opening. Neuromethods, 2016, , 145-162.	0.3	1
59	Prying open a glutamate receptor gate. Journal of General Physiology, 2019, 151, 396-399.	1.9	1
60	Structural Correlates of Ionotropic Glutamate Receptor Function. , 2008, , 247-297.		0
61	A Swiss army knife for targeting receptors. ELife, 2018, 7, .	6.0	0