Sarah C R Lummis

List of Publications by Year
in descending order

83	3,966	147566 31	123241 61
papers	citations	h-index	g-index

86	86	86	3276
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mutations of the nACh Receptor M4 Helix Reveal Different Phenotypes in Different Expression Systems: Could Lipids be Responsible?. Frontiers in Physiology, 2022, 13, .	1.3	2
2	A Single Mutation in the Outer Lipid-Facing Helix of a Pentameric Ligand-Gated Ion Channel Affects Channel Function Through a Radially-Propagating Mechanism. Frontiers in Molecular Biosciences, 2021, 8, 644720.	1.6	3
3	Regulation of a pentameric ligand-gated ion channel by a semiconserved cationic lipid-binding site. Journal of Biological Chemistry, 2021, 297, 100899.	1.6	15
4	M4, the Outermost Helix, is Extensively Involved in Opening of the Î±4Î²2 nACh Receptor. ACS Chemical Neuroscience, 2021, 12, 133-139.	1.7	7
5	Snake venom phospholipase A2s exhibit strong virucidal activity against SARS-CoV-2 and inhibit the viral spike glycoprotein interaction with ACE2. Cellular and Molecular Life Sciences, 2021, 78, 7777-7794.	2.4	28
6	Many Proline Residues in the Extracellular Domain Contribute to Glycine Receptor Function. ACS Chemical Neuroscience, 2020, 11, 2658-2665.	1.7	1
7	The M4 Helix Is Involved in Î±7 nACh Receptor Function. ACS Chemical Neuroscience, 2020, 11, 1406-1412.	1.7	11
8	Proline Residues Contribute to Efficient GABAp Receptor Function. ACS Chemical Neuroscience, 2020, 11, 4215-4222.	1.7	2
9	Proline Residues in the Transmembrane/Extracellular Domain Interface Loops Have Different Behaviors in 5-HT₃ and nACh Receptors. ACS Chemical Neuroscience, 2019, 10, 3327-3333.	1.7	10
10	Characterization of Residues in the 5-HT₃ Receptor M4 Region That Contribute to Function. ACS Chemical Neuroscience, 2019, 10, 3167-3172.	1.7	13
11	Curare alkaloids from Matis Dart Poison: Comparison with d-tubocurarine in interactions with nicotinic, 5-HT3 serotonin and GABAA receptors. PLoS ONE, 2019, 14, e0210182.	1.1	14
12	Characterization of a 5-HT₃â€“ELIC Chimera Revealing the Sites of Action of Modulators. ACS Chemical Neuroscience, 2018, 9, 1409-1415.	1.7	5
13	Aromatic Residues in the Fourth Transmembrane-Spanning Helix M4 Are Important for GABAÏ•Receptor Function. ACS Chemical Neuroscience, 2018, 9, 284-290.	1.7	14
14	Modeling and Mutational Analysis of the Binding Mode for the Multimodal Antidepressant Drug Vortioxetine to the Human 5-HT_{3A} Receptor. Molecular Pharmacology, 2018, 94, 1421-1434.	1.0	14
15	The roles of aromatic residues in the glycine receptor transmembrane domain. BMC Neuroscience, 2018, 19, 53.	0.8	17
16	Identification of Novel Functionally Important Aromatic Residue Interactions in the Extracellular Domain of the Glycine Receptor. Biochemistry, 2018, 57, 4029-4035.	1.2	5
17	Multiple regions in the extracellular domain of the glycine receptor determine receptor activity. Journal of Biological Chemistry, 2018, 293, 13889-13896.	1.6	6
18	Probing Proline Residues in the Prokaryotic Ligand-Gated Ion Channel, ELIC. Biochemistry, 2018, 57, 4036-4043.	1.2	7

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19	The 5-HT3 Receptor. , 2018, , 5373-5377.		0
20	Subtle Differences among 5-HT₃AC, 5-HT₃AD, and 5-HT₃AE Receptors Are Revealed by Partial Agonists. ACS Chemical Neuroscience, 2017, 8, 1085-1091.	1.7	9
21	The Proton Responsiveness in the Extracellular Domain of GLIC Differs in the Presence of the ELIC Transmembrane Domain. Biochemistry, 2017, 56, 2134-2138.	1.2	2
22	Palonosetronâ€“5-HT₃ Receptor Interactions As Shown by a Binding Protein Cocrystal Structure. ACS Chemical Neuroscience, 2016, 7, 1641-1646.	1.7	23
23	Crotonic Acid Blocks the Gloeobacter Ligand-Gated Ion Channel (GLIC) via the Extracellular Domain. Biochemistry, 2016, 55, 5947-5951.	1.2	7
24	Perturbation of Critical Prolines in Gloeobacter violaceus Ligand-gated Ion Channel (GLIC) Supports Conserved Gating Motions among Cys-loop Receptors. Journal of Biological Chemistry, 2016, 291, 6272-6280.	1.6	12
25	The 5-HT3 Receptor. , 2016, , 1-4.		0
26	Varenicline Interactions at the 5-HT₃ Receptor Ligand Binding Site are Revealed by 5-HTBP. ACS Chemical Neuroscience, 2015, 6, 1151-1157.	1.7	20
27	5-HT₃ Receptor Brain-Type B-Subunits are Differentially Expressed in Heterologous Systems. ACS Chemical Neuroscience, 2015, 6, 1158-1164.	1.7	6
28	The nicotinic Î±6 subunit gene determines variability in chronic pain sensitivity via cross-inhibition of P2X2/3 receptors. Science Translational Medicine, 2015, 7, 287ra72.	5.8	59
29	Disturbed Neuronal ER-Golgi Sorting of Unassembled Glycine Receptors Suggests Altered Subcellular Processing Is a Cause of Human Hyperekplexia. Journal of Neuroscience, 2015, 35, 422-437.	1.7	26
30	Probing residues in the pore-forming (M2) domain of the Cys-loop receptor homologue GLIC reveals some unusual features. Molecular Membrane Biology, 2015, 32, 26-31.	2.0	0
31	An atypical residue in the pore of Varroa destructor GABA-activated RDL receptors affects picrotoxin block and thymol modulation. Insect Biochemistry and Molecular Biology, 2014, 55, 19-25.	1.2	21
32	The binding characteristics and orientation of a novel radioligand with distinct properties at 5-HT3A and 5-HT3AB receptors. Neuropharmacology, 2014, 86, 378-388.	2.0	7
33	Structural Requirements in the Transmembrane Domain of GLIC Revealed by Incorporation of Noncanonical Histidine Analogs. Chemistry and Biology, 2014, 21, 1700-1706.	6.2	22
34	Insights into the binding of GABA to the insect RDL receptor from atomistic simulations: a comparison of models. Journal of Computer-Aided Molecular Design, 2014, 28, 35-48.	1.3	14
35	The Prokaryote Ligand-Gated Ion Channel ELIC Captured in a Pore Blocker-Bound Conformation by the Alzheimerâ€™s Disease Drug Memantine. Structure, 2014, 22, 1399-1407.	1.6	27
36	Structureâ€“Activity Relationships of Quinoxalineâ€Based 5â€HT₃A and 5â€HT₃AB Receptorâ€Selective Ligands. ChemMedChem, 2013, 8, 946-955.	1.6	10

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37	Agonists and antagonists induce different palonosetron dissociation rates in 5-HT3A and 5-HT3AB receptors. Neuropharmacology, 2013, 73, 241-246.	2.0	26
38	Exploring a potential palonosetron allosteric binding site in the 5-HT3 receptor. Bioorganic and Medicinal Chemistry, 2013, 21, 7523-7528.	1.4	14
39	Structural basis of ligand recognition in 5â€HT₃ receptors. EMBO Reports, 2013, 14, 49-56.	2.0	74
40	Multisite Binding of a General Anesthetic to the Prokaryotic Pentameric Erwinia chrysanthemi Ligand-gated Ion Channel (ELIC). Journal of Biological Chemistry, 2013, 288, 8355-8364.	1.6	90
41	Pentameric ligand-gated ion channel ELIC is activated by GABA and modulated by benzodiazepines. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E3028-34.	3.3	120
42	5-HT3 Receptors. Journal of Biological Chemistry, 2012, 287, 40239-40245.	1.6	123
43	GABA Binding to an Insect GABA Receptor: A Molecular Dynamics and Mutagenesis Study. Biophysical Journal, 2012, 103, 2071-2081.	0.2	43
44	Multiple Tyrosine Residues Contribute to GABA Binding in the GABA_C Receptor Binding Pocket. ACS Chemical Neuroscience, 2012, 3, 186-192.	1.7	20
45	The pharmacological profile of ELIC, a prokaryotic GABA-gated receptor. Neuropharmacology, 2012, 63, 761-767.	2.0	28
46	Design, Synthesis, and Structureâ€“Activity Relationships of Highly Potent 5-HT₃ Receptor Ligands. Journal of Medicinal Chemistry, 2012, 55, 8603-8614.	2.9	35
47	Mixed antagonistic effects of the ginkgolides at recombinant human ï GABAC receptors. Neuropharmacology, 2012, 63, 1127-1139.	2.0	12
48	A single amino acid determines the toxicity of Ginkgo biloba extracts. FASEB Journal, 2012, 26, 1884-1891.	0.2	19
49	Cys-Loop Receptor Channel Blockers Also Block GLIC. Biophysical Journal, 2011, 101, 2912-2918.	0.2	20
50	Ginkgolide B and bilobalide block the pore of the 5-HT3 receptor at a location that overlaps the picrotoxin binding site. Neuropharmacology, 2011, 60, 488-495.	2.0	32
51	A Cation-Ï€ Interaction at a Phenylalanine Residue in the Glycine Receptor Binding Site Is Conserved for Different Agonists. Molecular Pharmacology, 2011, 79, 742-748.	1.0	43
52	Two Amino Acid Residues Contribute to a Cation-Â Binding Interaction in the Binding Site of an Insect GABA Receptor. Journal of Neuroscience, 2011, 31, 12371-12376.	1.7	34
53	Molecular Characterization of Agonists That Bind to an Insect GABA Receptor. Biochemistry, 2010, 49, 2897-2902.	1.2	31
54	The structural basis of function in Cys-loop receptors. Quarterly Reviews of Biophysics, 2010, 43, 449-499.	2.4	308

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55	Calcium modulation of 5-HT3 receptor binding and function. Neuropharmacology, 2009, 56, 285-291.	2.0	8
56	The 5-HT3 receptor â€“ the relationship between structure and function. Neuropharmacology, 2009, 56, 273-284.	2.0	228
57	Locating GABA in GABA receptor binding sites. Biochemical Society Transactions, 2009, 37, 1343-1346.	1.6	22
58	5-Fluorotryptamine is a partial agonist at 5-HT3 receptors, and reveals that size and electronegativity at the 5 position of tryptamine are critical for efficient receptor function. European Journal of Pharmacology, 2008, 580, 291-297.	1.7	16
59	A Hydrogen Bond in Loop A Is Critical for the Binding and Function of the 5-HT₃ Receptor. Biochemistry, 2008, 47, 6370-6377.	1.2	46
60	A Cation-Ï€ Interaction in the Binding Site of the Glycine Receptor Is Mediated by a Phenylalanine Residue. Journal of Neuroscience, 2008, 28, 10937-10942.	1.7	67
61	Transducing Agonist Binding to Channel Gating Involves Different Interactions in 5-HT3 and GABAC Receptors. Journal of Biological Chemistry, 2007, 282, 25623-25630.	1.6	35
62	Unnatural Amino Acid Mutagenesis of the GABAA Receptor Binding Site Residues Reveals a Novel Cation-Â Interaction between GABA and Â2Tyr97. Journal of Neuroscience, 2007, 27, 886-892.	1.7	102
63	The 5-HT3receptor as a therapeutic target. Expert Opinion on Therapeutic Targets, 2007, 11, 527-540.	1.5	217
64	Defining the roles of Asn-128, Glu-129 and Phe-130 in loop A of the 5-HT3receptor. Molecular Membrane Biology, 2006, 23, 442-451.	2.0	29
65	Molecular modeling of the GABAC receptor ligand-binding domain. Journal of Molecular Modeling, 2006, 12, 317-324.	0.8	76
66	Detection of human and rodent 5-HT3B receptor subunits by anti-peptide polyclonal antibodies. BMC Neuroscience, 2006, 7, 27.	0.8	24
67	Locating the Carboxylate Group of GABA in the Homomeric rho GABAA Receptor Ligand-binding Pocket. Journal of Biological Chemistry, 2006, 281, 24455-24461.	1.6	39
68	Mutagenesis and Molecular Modeling Reveal the Importance of the 5-HT3 Receptor F-loop. Journal of Biological Chemistry, 2006, 281, 16576-16582.	1.6	52
69	FlexStation examination of 5-HT3 receptor function using Ca2+- and membrane potential-sensitive dyes: Advantages and potential problems. Journal of Neuroscience Methods, 2005, 149, 172-177.	1.3	31
70	A Cation-Ï€ Binding Interaction with a Tyrosine in the Binding Site of the GABAC Receptor. Chemistry and Biology, 2005, 12, 993-997.	6.2	127
71	Cisâ€“trans isomerization at a proline opens the pore of a neurotransmitter-gated ion channel. Nature, 2005, 438, 248-252.	13.7	421
72	Locating an Antagonist in the 5-HT3 Receptor Binding Site Using Modeling and Radioligand Binding. Journal of Biological Chemistry, 2005, 280, 20476-20482.	1.6	69

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73	Tyrosine Residues That Control Binding and Gating in the 5-Hydroxytryptamine3 Receptor Revealed by Unnatural Amino Acid Mutagenesis. Journal of Neuroscience, 2004, 24, 9097-9104.	1.7	90
74	The Role of Tyrosine Residues in the Extracellular Domain of the 5-Hydroxytryptamine3 Receptor. Journal of Biological Chemistry, 2004, 279, 23294-23301.	1.6	47
75	A single ring of charged amino acids at one end of the pore can control ion selectivity in the 5-HT3 receptor. British Journal of Pharmacology, 2003, 140, 359-365.	2.7	54
76	Prediction of 5-HT3 Receptor Agonist-Binding Residues Using Homology Modeling. Biophysical Journal, 2003, 84, 2338-2344.	0.2	97
77	Mutation of the GABAA receptor M1 transmembrane proline increases GABA affinity and reduces barbiturate enhancement. Neuropharmacology, 2002, 42, 502-521.	2.0	37
78	The molecular basis of the structure and function of the 5-HT 3 receptor: a model ligand-gated ion channel (Review). Molecular Membrane Biology, 2002, 19, 11-26.	2.0	174
79	Molecular Properties of 5-Hydroxytryptamine3 Receptor-Type Binding Sites Purified from NG1O8-15 Cells. Journal of Neurochemistry, 1992, 59, 1692-1701.	2.1	35
80	Actions of imidacloprid and a related nitromethylene on cholinergic receptors of an identified insect motor neurone. Pest Management Science, 1991, 33, 197-204.	0.7	263
81	Increased ?-Aminobutyric Acid Receptor Function in the Cerebral Cortex of Myoclonic Calves with an Hereditary Deficit in Glycine/Strychnine Receptors. Journal of Neurochemistry, 1990, 55, 421-426.	2.1	17
82	?-Aminobutyric Acid Receptor Ionophore Complexes: Differential Effects of Deltamethrin, Dichlorodiphenyltrichloroethane, and Some Novel Insecticides in a Rat Brain Membrane Preparation. Journal of Neurochemistry, 1987, 48, 689-694.	2.1	18
83	[N-Methyl-3H]Scopolamine binding sites in the central nervous system of the cockroachPeriplaneta americana. Archives of Insect Biochemistry and Physiology, 1986, 3, 339-347.	0.6	13