Laurence O Trussell

List of Publications by Year
in descending order

60 papers	5,503 citations	101543 36 h-index	128289 60 g-index
69 all docs	69 docs citations	69 times ranked	3593 citing authors

#	Article	IF	Citations
1	KCNQ Channels Enable Reliable Presynaptic Spiking and Synaptic Transmission at High Frequency. Journal of Neuroscience, 2022, 42, 3305-3315.	3.6	5
2	Descending Axonal Projections from the Inferior Colliculus Target Nearly All Excitatory and Inhibitory Cell Types of the Dorsal Cochlear Nucleus. Journal of Neuroscience, 2022, 42, 3381-3393.	3.6	11
3	Central circuitry and function of the cochlear efferent systems. Hearing Research, 2022, 425, 108516.	2.0	11
4	Incomplete removal of extracellular glutamate controls synaptic transmission and integration at a cerebellar synapse. ELife, 2021, 10, .	6.0	12
5	Distinct forms of synaptic plasticity during ascending vs descending control of medial olivocochlear efferent neurons. ELife, 2021, 10, .	6.0	20
6	Identification of an inhibitory neuron subtype, the L-stellate cell of the cochlear nucleus. ELife, 2020, 9, .	6.0	23
7	Selective targeting of unipolar brush cell subtypes by cerebellar mossy fibers. ELife, 2019, 8, .	6.0	41
8	Microcircuits of the Dorsal Cochlear Nucleus. Springer Handbook of Auditory Research, 2018, , 73-99.	0.7	16
9	The Calyx of Held: A Hypothesis on the Need for Reliable Timing in an Intensity-Difference Encoder. Neuron, 2018, 100, 534-549.	8.1	42
10	Serotonergic Modulation of Sensory Representation in a Central Multisensory Circuit Is Pathway Specific. Cell Reports, 2017, 20, 1844-1854.	6.4	45
11	Corelease of Inhibitory Neurotransmitters in the Mouse Auditory Midbrain. Journal of Neuroscience, 2017, 37, 9453-9464.	3.6	45
12	Slow AMPAR Synaptic Transmission Is Determined by Stargazin and Glutamate Transporters. Neuron, 2017, 96, 73-80.e4.	8.1	28
13	Double-Nanodomain Coupling of Calcium Channels, Ryanodine Receptors, and BK Channels Controls the Generation of Burst Firing. Neuron, 2017, 96, 856-870.e4.	8.1	48
14	Auditory Golgi cells are interconnected predominantly by electrical synapses. Journal of Neurophysiology, 2016, 116, 540-551.	1.8	15
15	Quantum Disentanglement: Electrical Analysis of the Complex Roles of Ions in Filling Vesicles with Glutamate. Neuron, 2016, 90, 667-669.	8.1	2
16	Spontaneous Activity Defines Effective Convergence Ratios in an Inhibitory Circuit. Journal of Neuroscience, 2016, 36, 3268-3280.	3.6	25
17	Serotonergic Regulation of Excitability of Principal Cells of the Dorsal Cochlear Nucleus. Journal of Neuroscience, 2015, 35, 4540-4551.	3.6	56
18	ON and OFF Unipolar Brush Cells Transform Multisensory Inputs to the Auditory System. Neuron, 2015, 85, 1029-1042.	8.1	51

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19	Single Granule Cells Excite Golgi Cells and Evoke Feedback Inhibition in the Cochlear Nucleus. Journal of Neuroscience, 2015, 35, 4741-4750.	3.6	17
20	Superficial stellate cells of the dorsal cochlear nucleus. Frontiers in Neural Circuits, 2014, 8, 63.	2.8	14
21	Chemical synaptic transmission onto superficial stellate cells of the mouse dorsal cochlear nucleus. Journal of Neurophysiology, 2014, 111, 1812-1822.	1.8	15
22	Presynaptic HCN Channels Regulate Vesicular Glutamate Transport. Neuron, 2014, 84, 340-346.	8.1	47
23	Control of Interneuron Firing by Subthreshold Synaptic Potentials in Principal Cells of the Dorsal Cochlear Nucleus. Neuron, 2014, 83, 324-330.	8.1	29
24	Regulation of interneuron excitability by gap junction coupling with principal cells. Nature Neuroscience, 2013, 16, 1764-1772.	14.8	49
25	Rapid, Activity-Independent Turnover of Vesicular Transmitter Content at a Mixed Glycine/GABA Synapse. Journal of Neuroscience, 2013, 33, 4768-4781.	3.6	73
26	Intrinsic and synaptic properties of vertical cells of the mouse dorsal cochlear nucleus. Journal of Neurophysiology, 2012, 108, 1186-1198.	1.8	28
27	The Physiology of the Axon Initial Segment. Annual Review of Neuroscience, 2012, 35, 249-265.	10.7	189
28	Control of firing patterns through modulation of axon initial segment Tâ€type calcium channels. Journal of Physiology, 2012, 590, 109-118.	2.9	51
29	Presynaptic regulation of quantal size: K+/H+ exchange stimulates vesicular glutamate transport. Nature Neuroscience, 2011, 14, 1285-1292.	14.8	66
30	Spontaneous Spiking and Synaptic Depression Underlie Noradrenergic Control of Feed-Forward Inhibition. Neuron, 2011, 71, 306-318.	8.1	70
31	Synaptic plasticity in inhibitory neurons of the auditory brainstem. Neuropharmacology, 2011, 60, 774-779.	4.1	18
32	KCNQ5 channels control resting properties and release probability of a synapse. Nature Neuroscience, 2011, 14, 840-847.	14.8	73
33	Molecular Layer Inhibitory Interneurons Provide Feedforward and Lateral Inhibition in the Dorsal Cochlear Nucleus. Journal of Neurophysiology, 2010, 104, 2462-2473.	1.8	45
34	Dopaminergic Modulation of Axon Initial Segment Calcium Channels Regulates Action Potential Initiation. Neuron, 2010, 68, 500-511.	8.1	104
35	Heterogeneous Kinetics and Pharmacology of Synaptic Inhibition in the Chick Auditory Brainstem. Journal of Neuroscience, 2009, 29, 9625-9634.	3.6	51
36	Negative Shift in the Glycine Reversal Potential Mediated by a Ca²⁺- and pH-Dependent Mechanism in Interneurons. Journal of Neuroscience, 2009, 29, 11495-11510.	3.6	35

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37	Slow glycinergic transmission mediated by transmitter pooling. Nature Neuroscience, 2009, 12, 286-294.	14.8	40
38	Axon Initial Segment Ca2+ Channels Influence Action Potential Generation and Timing. Neuron, 2009, 61, 259-271.	8.1	142
39	Fidelity of Complex Spike-Mediated Synaptic Transmission between Inhibitory Interneurons. Journal of Neuroscience, 2008, 28, 9440-9450.	3.6	33
40	Glycinergic Transmission Shaped by the Corelease of GABA in a Mammalian Auditory Synapse. Neuron, 2008, 57, 524-535.	8.1	114
41	Control of Presynaptic Function by a Persistent Na+ Current. Neuron, 2008, 60, 975-979.	8.1	57
42	Synaptic Inputs to Granule Cells of the Dorsal Cochlear Nucleus. Journal of Neurophysiology, 2008, 99, 208-219.	1.8	21
43	Ion Channels Generating Complex Spikes in Cartwheel Cells of the Dorsal Cochlear Nucleus. Journal of Neurophysiology, 2007, 97, 1705-1725.	1.8	66
44	Coactivation of Pre- and Postsynaptic Signaling Mechanisms Determines Cell-Specific Spike-Timing-Dependent Plasticity. Neuron, 2007, 54, 291-301.	8.1	202
45	Estimate of the Chloride Concentration in a Central Glutamatergic Terminal: A Gramicidin Perforated-Patch Study on the Calyx of Held. Journal of Neuroscience, 2006, 26, 11432-11436.	3.6	121
46	Staggered Development of GABAergic and Glycinergic Transmission in the MNTB. Journal of Neurophysiology, 2005, 93, 819-828.	1.8	126
47	Modulation of Transmitter Release by Presynaptic Resting Potential and Background Calcium Levels. Neuron, 2005, 48, 109-121.	8.1	236
48	Inhibitory Control at a Synaptic Relay. Journal of Neuroscience, 2004, 24, 2643-2647.	3.6	74
49	Cell-specific, spike timingâ€“dependent plasticities in the dorsal cochlear nucleus. Nature Neuroscience, 2004, 7, 719-725.	14.8	277
50	Modulation of transmitter release at giant synapses of the auditory system. Current Opinion in Neurobiology, 2002, 12, 400-404.	4.2	39
51	Maturation of Synaptic Transmission at End-Bulb Synapses of the Cochlear Nucleus. Journal of Neuroscience, 2001, 21, 9487-9498.	3.6	112
52	Minimizing Synaptic Depression by Control of Release Probability. Journal of Neuroscience, 2001, 21, 1857-1867.	3.6	112
53	Correlation of AMPA Receptor Subunit Composition with Synaptic Input in the Mammalian Cochlear Nuclei. Journal of Neuroscience, 2001, 21, 7428-7437.	3.6	116
54	Presynaptic glycine receptors enhance transmitter release at a mammalian central synapse. Nature, 2001, 411, 587-590.	27.8	280

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55	Inhibitory Transmission Mediated by Asynchronous Transmitter Release. Neuron, 2000, 26, 683-694.	8.1	203
56	Time Course and Permeation of Synaptic AMPA Receptors in Cochlear Nuclear Neurons Correlate with Input. Journal of Neuroscience, 1999, 19, 8721-8729.	3.6	143
57	SYNAPTIC MECHANISMS FOR CODING TIMING IN AUDITORY NEURONS. Annual Review of Physiology, 1999, 61, 477-496.	13.1	379
58	Desensitization of AMPA receptors upon multiquantal neurotransmitter release. Neuron, 1993, 10, 1185-1196.	8.1	443
59	The kinetics of the response to glutamate and kainate in neurons of the avian cochlear nucleus. Neuron, 1992, 9, 173-186.	8.1	232
60	Glutamate receptor desensitization and its role in synaptic transmission. Neuron, 1989, 3, 209-218.	8.1	462