

# Steven A Siegelbaum

## List of Publications by Year in descending order

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51  
papers

9,990  
citations

81900

39  
h-index

175258

52  
g-index

58  
all docs

58  
docs citations

58  
times ranked

8190  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hyperpolarization-Activated Cation Currents: From Molecules to Physiological Function. Annual Review of Physiology, 2003, 65, 453-480.	13.1	1,059
2	The hippocampal CA2 region is essential for social memory. Nature, 2014, 508, 88-92.	27.8	729
3	Identification of a Gene Encoding a Hyperpolarization-Activated Pacemaker Channel of Brain. Cell, 1998, 93, 717-729.	28.9	656
4	Serotonin and cyclic AMP close single K <sup>+</sup> channels in Aplysia sensory neurones. Nature, 1982, 299, 413-417.	27.8	649
5	Molecular and Functional Heterogeneity of Hyperpolarization-Activated Pacemaker Channels in the Mouse CNS. Journal of Neuroscience, 2000, 20, 5264-5275.	3.6	537
6	PRESYNAPTIC IONOTROPIC RECEPTORS AND THE CONTROL OF TRANSMITTER RELEASE. Annual Review of Neuroscience, 1999, 22, 443-485.	10.7	521
7	The role of Rab3A in neurotransmitter release. Nature, 1994, 369, 493-497.	27.8	471
8	Properties of Hyperpolarization-Activated Pacemaker Current Defined by Coassembly of Hcn1 and Hcn2 Subunits and Basal Modulation by Cyclic Nucleotide. Journal of General Physiology, 2001, 117, 491-504.	1.9	379
9	Molecular cloning and single-channel properties of the cyclic nucleotide-gated channel from catfish olfactory neurons. Neuron, 1992, 8, 45-58.	8.1	313
10	A Behavioral Role for Dendritic Integration. Cell, 2004, 119, 719-732.	28.9	299
11	Molecular mechanism of cyclic-nucleotide-gated channel activation. Nature, 1994, 372, 369-374.	27.8	292
12	Visualization of changes in presynaptic function during long-term synaptic plasticity. Nature Neuroscience, 2001, 4, 711-717.	14.8	287
13	Strong CA2 Pyramidal Neuron Synapses Define a Powerful Disynaptic Cortico-Hippocampal Loop. Neuron, 2010, 66, 560-572.	8.1	248
14	Gating of hippocampal activity, plasticity, and memory by entorhinal cortex long-range inhibition. Science, 2016, 351, aaa5694.	12.6	220
15	A hippocampal circuit linking dorsal CA2 to ventral CA1 critical for social memory dynamics. Nature Communications, 2018, 9, 4163.	12.8	189
16	Regulation of HCN Channel Surface Expression by a Novel C-Terminal Protein-Protein Interaction. Journal of Neuroscience, 2004, 24, 10750-10762.	3.6	186
17	A circuit from hippocampal CA2 to lateral septum disinhibits social aggression. Nature, 2018, 564, 213-218.	27.8	184
18	A Role for Synaptic Inputs at Distal Dendrites: Instructive Signals for Hippocampal Long-Term Plasticity. Neuron, 2007, 56, 866-879.	8.1	175

#	ARTICLE	IF	CITATIONS
19	Recurrent Circuitry Dynamically Shapes the Activation of Piriform Cortex. <i>Neuron</i> , 2011, 72, 49-56.	8.1	175
20	HCN hyperpolarization-activated cation channels inhibit EPSPs by interactions with M-type K <sup>+</sup> channels. <i>Nature Neuroscience</i> , 2009, 12, 577-584.	14.8	167
21	TRIP8b Splice Variants Form a Family of Auxiliary Subunits that Regulate Gating and Trafficking of HCN Channels in the Brain. <i>Neuron</i> , 2009, 62, 802-813.	8.1	151
22	Hippocampal CA2 sharp-wave ripples reactivate and promote social memory. <i>Nature</i> , 2020, 587, 264-269.	27.8	145
23	Regulation of Gating and Rundown of HCN Hyperpolarization-activated Channels by Exogenous and Endogenous PIP <sub>2</sub> . <i>Journal of General Physiology</i> , 2006, 128, 593-604.	1.9	142
24	The Corticohippocampal Circuit, Synaptic Plasticity, and Memory. <i>Cold Spring Harbor Perspectives in Biology</i> , 2015, 7, a021733.	5.5	140
25	Age-Dependent Specific Changes in Area CA2 of the Hippocampus and Social Memory Deficit in a Mouse Model of the 22q11.2 Deletion Syndrome. <i>Neuron</i> , 2016, 89, 163-176.	8.1	137
26	Direct modulation of Aplysia S-K <sup>+</sup> channels by a 12-lipoxygenase metabolite of arachidonic acid. <i>Nature</i> , 1989, 342, 553-555.	27.8	136
27	Midbrain dopamine neurons bidirectionally regulate CA3-CA1 synaptic drive. <i>Nature Neuroscience</i> , 2015, 18, 1763-1771.	14.8	121
28	A Cortico-Hippocampal Learning Rule Shapes Inhibitory Microcircuit Activity to Enhance Hippocampal Information Flow. <i>Neuron</i> , 2013, 79, 1208-1221.	8.1	113
29	Allosteric activation and tuning of ligand efficacy in cyclic-nucleotide-gated channels. <i>Nature</i> , 1997, 386, 612-615.	27.8	107
30	Proximodistal Heterogeneity of Hippocampal CA3 Pyramidal Neuron Intrinsic Properties, Connectivity, and Reactivation during Memory Recall. <i>Neuron</i> , 2017, 95, 656-672.e3.	8.1	99
31	Medial and Lateral Entorhinal Cortex Differentially Excite Deep versus Superficial CA1 Pyramidal Neurons. <i>Cell Reports</i> , 2017, 18, 148-160.	6.4	93
32	Modulation of cyclic nucleotide-regulated HCN channels by PIP <sub>2</sub> and receptors coupled to phospholipase C. <i>Pflügers Archiv European Journal of Physiology</i> , 2007, 455, 125-145.	2.8	89
33	Hippocampal 5-HT Input Regulates Memory Formation and Schaffer Collateral Excitation. <i>Neuron</i> , 2018, 98, 992-1004.e4.	8.1	88
34	Changes in Local S <sub>4</sub> Environment Provide a Voltage-sensing Mechanism for Mammalian Hyperpolarization-activated HCN Channels. <i>Journal of General Physiology</i> , 2004, 123, 5-20.	1.9	81
35	Input-Timing-Dependent Plasticity in the Hippocampal CA2 Region and Its Potential Role in Social Memory. <i>Neuron</i> , 2017, 95, 1089-1102.e5.	8.1	73
36	TRIP8b Splice Forms Act in Concert to Regulate the Localization and Expression of HCN1 Channels in CA1 Pyramidal Neurons. <i>Neuron</i> , 2011, 70, 495-509.	8.1	69

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37	Dendritic Na <sup>+</sup> spikes enable cortical input to drive action potential output from hippocampal CA2 pyramidal neurons. <i>ELife</i> , 2014, 3, .	6.0	64
38	Coding of social novelty in the hippocampal CA2 region and its disruption and rescue in a 22q11.2 microdeletion mouse model. <i>Nature Neuroscience</i> , 2020, 23, 1365-1375.	14.8	59
39	Reelin Signaling Specifies the Molecular Identity of the Pyramidal Neuron Distal Dendritic Compartment. <i>Cell</i> , 2014, 158, 1335-1347.	28.9	55
40	The Dendrites of CA2 and CA1 Pyramidal Neurons Differentially Regulate Information Flow in the Cortico-Hippocampal Circuit. <i>Journal of Neuroscience</i> , 2017, 37, 3276-3293.	3.6	54
41	A direct lateral entorhinal cortex to hippocampal CA2 circuit conveys social information required for social memory. <i>Neuron</i> , 2022, 110, 1559-1572.e4.	8.1	48
42	Gating movements and ion permeation in HCN4 pacemaker channels. <i>Molecular Cell</i> , 2021, 81, 2929-2943.e6.	9.7	41
43	Differential contribution of TRPM4 and TRPM5 nonselective cation channels to the slow afterdepolarization in mouse prefrontal cortex neurons. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 267.	3.7	38
44	Enkephalin release from VIP interneurons in the hippocampal CA2/3a region mediates heterosynaptic plasticity and social memory. <i>Molecular Psychiatry</i> , 2022, 27, 2879-2900.	7.9	20
45	Presynaptic facilitation by hyperpolarization-activated pacemaker channels. <i>Nature Neuroscience</i> , 2000, 3, 101-102.	14.8	19
46	Postsynaptic integrative properties of dorsal CA1 pyramidal neuron subpopulations. <i>Journal of Neurophysiology</i> , 2020, 123, 980-992.	1.8	15
47	Synaptic Organization of Anterior Olfactory Nucleus Inputs to Piriform Cortex. <i>Journal of Neuroscience</i> , 2020, 40, 9414-9425.	3.6	13
48	Probing S4 and S5 segment proximity in mammalian hyperpolarization-activated HCN channels by disulfide bridging and Cd <sup>2+</sup> coordination. <i>Pflügers Archiv European Journal of Physiology</i> , 2009, 458, 259-272.	2.8	9
49	Frequency-Dependent Synaptic Dynamics Differentially Tune CA1 and CA2 Pyramidal Neuron Responses to Cortical Input. <i>Journal of Neuroscience</i> , 2021, 41, 8103-8110.	3.6	7
50	Somatic Depolarization Enhances Hippocampal CA1 Dendritic Spike Propagation and Distal Input-Driven Synaptic Plasticity. <i>Journal of Neuroscience</i> , 2022, 42, 3406-3425.	3.6	3
51	Synaptic Organization of Anterior Olfactory Nucleus Inputs to Piriform Cortex. <i>Journal of Neuroscience</i> , 2020, 40, 9414-9425.	3.6	1