

Ofer Yizhar

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

16,712
citations

70961

41
h-index

98622

67
g-index

82
all docs

82
docs citations

82
times ranked

17460
citing authors

#	ARTICLE	IF	CITATIONS
1	Parvalbumin neurons and gamma rhythms enhance cortical circuit performance. <i>Nature</i> , 2009, 459, 698-702.	13.7	2,258
2	Neocortical excitation/inhibition balance in information processing and social dysfunction. <i>Nature</i> , 2011, 477, 171-178.	13.7	2,036
3	Optogenetics in Neural Systems. <i>Neuron</i> , 2011, 71, 9-34.	3.8	1,629
4	The Development and Application of Optogenetics. <i>Annual Review of Neuroscience</i> , 2011, 34, 389-412.	5.0	1,567
5	Tuning arousal with optogenetic modulation of locus coeruleus neurons. <i>Nature Neuroscience</i> , 2010, 13, 1526-1533.	7.1	800
6	Principles for applying optogenetic tools derived from direct comparative analysis of microbial opsins. <i>Nature Methods</i> , 2012, 9, 159-172.	9.0	666
7	Ultrafast optogenetic control. <i>Nature Neuroscience</i> , 2010, 13, 387-392.	7.1	660
8	Recombinase-Driver Rat Lines: Tools, Techniques, and Optogenetic Application to Dopamine-Mediated Reinforcement. <i>Neuron</i> , 2011, 72, 721-733.	3.8	593
9	Bi-stable neural state switches. <i>Nature Neuroscience</i> , 2009, 12, 229-234.	7.1	533
10	Crystal structure of the channelrhodopsin light-gated cation channel. <i>Nature</i> , 2012, 482, 369-374.	13.7	503
11	Red-shifted optogenetic excitation: a tool for fast neural control derived from <i>Volvox carteri</i> . <i>Nature Neuroscience</i> , 2008, 11, 631-633.	7.1	490
12	The Microbial Opsin Family of Optogenetic Tools. <i>Cell</i> , 2011, 147, 1446-1457.	13.5	471
13	An optogenetic toolbox designed for primates. <i>Nature Neuroscience</i> , 2011, 14, 387-397.	7.1	400
14	Biophysical constraints of optogenetic inhibition at presynaptic terminals. <i>Nature Neuroscience</i> , 2016, 19, 554-556.	7.1	317
15	Two-photon optogenetic toolbox for fast inhibition, excitation and bistable modulation. <i>Nature Methods</i> , 2012, 9, 1171-1179.	9.0	299
16	Silencing Neurons: Tools, Applications, and Experimental Constraints. <i>Neuron</i> , 2017, 95, 504-529.	3.8	263
17	High-efficiency optogenetic silencing with soma-targeted anion-conducting channelrhodopsins. <i>Nature Communications</i> , 2018, 9, 4125.	5.8	209
18	A sexually dimorphic hypothalamic circuit controls maternal care and oxytocin secretion. <i>Nature</i> , 2015, 525, 519-522.	13.7	201

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19	Chronic Optogenetic Activation Augments A β Pathology in a Mouse Model of Alzheimer Disease. <i>Cell Reports</i> , 2015, 11, 859-865.	2.9	186
20	A new mode of corticothalamic transmission revealed in the Gria4 Δ model of absence epilepsy. <i>Nature Neuroscience</i> , 2011, 14, 1167-1173.	7.1	159
21	Two-Photon Bidirectional Control and Imaging of Neuronal Excitability with High Spatial Resolution In Vivo. <i>Cell Reports</i> , 2018, 22, 3087-3098.	2.9	150
22	Manipulating fear associations via optogenetic modulation of amygdala inputs to prefrontal cortex. <i>Nature Neuroscience</i> , 2017, 20, 836-844.	7.1	146
23	Locus coeruleus norepinephrine activity mediates sensory-evoked awakenings from sleep. <i>Science Advances</i> , 2020, 6, eaaz4232.	4.7	124
24	Somatostatin interneurons in the prefrontal cortex control affective state discrimination in mice. <i>Nature Neuroscience</i> , 2020, 23, 47-60.	7.1	112
25	GABAergic Projection Neurons Route Selective Olfactory Inputs to Specific Higher-Order Neurons. <i>Neuron</i> , 2013, 79, 917-931.	3.8	111
26	Tomosyn inhibits priming of large dense-core vesicles in a calcium-dependent manner. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 2578-2583.	3.3	104
27	A Functional Gradient in the Rodent Prefrontal Cortex Supports Behavioral Inhibition. <i>Current Biology</i> , 2017, 27, 549-555.	1.8	101
28	Ucn3 and CRF-R2 in the medial amygdala regulate complex social dynamics. <i>Nature Neuroscience</i> , 2016, 19, 1489-1496.	7.1	91
29	Efficient optogenetic silencing of neurotransmitter release with a mosquito rhodopsin. <i>Neuron</i> , 2021, 109, 1621-1635.e8.	3.8	81
30	Pathway-, layer- and cell-type-specific thalamic input to mouse barrel cortex. <i>ELife</i> , 2019, 8, .	2.8	80
31	Dynamics of social representation in the mouse prefrontal cortex. <i>Nature Neuroscience</i> , 2019, 22, 2013-2022.	7.1	78
32	Optogenetic Brain Interfaces. <i>IEEE Reviews in Biomedical Engineering</i> , 2014, 7, 3-30.	13.1	76
33	Anatomically and functionally distinct thalamocortical inputs to primary and secondary mouse whisker somatosensory cortices. <i>Nature Communications</i> , 2020, 11, 3342.	5.8	74
34	Spatiotemporal Organization of Ras Signaling: Rasosomes and the Galectin Switch. <i>Cellular and Molecular Neurobiology</i> , 2006, 26, 469-493.	1.7	69
35	CRF receptor type 2 neurons in the posterior bed nucleus of the stria terminalis critically contribute to stress recovery. <i>Molecular Psychiatry</i> , 2017, 22, 1691-1700.	4.1	67
36	Optogenetic Insights into Social Behavior Function. <i>Biological Psychiatry</i> , 2012, 71, 1075-1080.	0.7	62

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37	Ion interaction at the pore of Lc-type Ca ²⁺ channel is sufficient to mediate depolarization-induced exocytosis. <i>Journal of Neurochemistry</i> , 2006, 97, 116-127.	2.1	59
38	In situ electrochemical generation of nitric oxide for neuronal modulation. <i>Nature Nanotechnology</i> , 2020, 15, 690-697.	15.6	58
39	Associative and plastic thalamic signaling to the lateral amygdala controls fear behavior. <i>Nature Neuroscience</i> , 2020, 23, 625-637.	7.1	58
40	Optopatcher—An electrode holder for simultaneous intracellular patch-clamp recording and optical manipulation. <i>Journal of Neuroscience Methods</i> , 2013, 214, 113-117.	1.3	54
41	Wireless Optogenetic Stimulation of Oxytocin Neurons in a Semi-natural Setup Dynamically Elevates Both Pro-social and Agonistic Behaviors. <i>Neuron</i> , 2020, 107, 644-655.e7.	3.8	54
42	Optogenetic control of mitochondrial metabolism and Ca ²⁺ signaling by mitochondria-targeted opsins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E5167-E5176.	3.3	52
43	Friends and foes in synaptic transmission: the role of tomosyn in vesicle priming. <i>Trends in Neurosciences</i> , 2009, 32, 275-282.	4.2	50
44	Multiple functional domains are involved in tomosyn regulation of exocytosis. <i>Journal of Neurochemistry</i> , 2007, 103, 604-616.	2.1	43
45	The social dilemma: prefrontal control of mammalian sociability. <i>Current Opinion in Neurobiology</i> , 2021, 68, 67-75.	2.0	39
46	Receptor-mediated Regulation of Tomosyn-Syntaxin 1A Interactions in Bovine Adrenal Chromaffin Cells. <i>Journal of Biological Chemistry</i> , 2007, 282, 22887-22899.	1.6	38
47	Non-conducting function of the Kv2.1 channel enables it to recruit vesicles for release in neuroendocrine and nerve cells. <i>Journal of Cell Science</i> , 2010, 123, 1940-1947.	1.2	38
48	Microbial Opsins: A Family of Single-Component Tools for Optical Control of Neural Activity. <i>Cold Spring Harbor Protocols</i> , 2011, 2011, top102.	0.2	38
49	Reciprocal amygdala—prefrontal interactions in learning. <i>Current Opinion in Neurobiology</i> , 2018, 52, 149-155.	2.0	38
50	Optogenetics at the presynapse. <i>Nature Neuroscience</i> , 2022, 25, 984-998.	7.1	37
51	Nonconventional Trafficking of Ras Associated with Ras Signal Organization. <i>Traffic</i> , 2006, 7, 1119-1126.	1.3	35
52	Ras and Its Signals Diffuse through the Cell on Randomly Moving Nanoparticles. <i>Cancer Research</i> , 2006, 66, 1974-1981.	0.4	33
53	Optogenetic strategies for high-efficiency all-optical interrogation using blue-light-sensitive opsins. <i>ELife</i> , 2021, 10, .	2.8	29
54	Functional characterization of sodium-pumping rhodopsins with different pumping properties. <i>PLoS ONE</i> , 2017, 12, e0179232.	1.1	26

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55	Rhodopsin-bestrophin fusion proteins from unicellular algae form gigantic pentameric ion channels. <i>Nature Structural and Molecular Biology</i> , 2022, 29, 592-603.	3.6	23
56	Mapping Dynamic Protein Interactions to Insulin Secretory Granule Behavior with TIRF-FRET. <i>Biophysical Journal</i> , 2010, 99, 1311-1320.	0.2	22
57	An Implantable Optical Stimulation Delivery System for Actuating an Excitable Biosubstrate. <i>IEEE Journal of Solid-State Circuits</i> , 2011, 46, 321-332.	3.5	19
58	Modulating Vesicle Priming Reveals that Vesicle Immobilization Is Necessary but not Sufficient for Fusion-Competence. <i>PLoS ONE</i> , 2008, 3, e2694.	1.1	18
59	Neuron-Specific Expression of Tomosyn1 in the Mouse Hippocampal Dentate Gyrus Impairs Spatial Learning and Memory. <i>NeuroMolecular Medicine</i> , 2013, 15, 351-363.	1.8	17
60	Neurophotonic Tools for Microscopic Measurements and Manipulation: Status Report. <i>Neurophotonics</i> , 2022, 9, 013001.	1.7	17
61	Stress and sociability. <i>Nature Neuroscience</i> , 2018, 21, 304-306.	7.1	6
62	Involvement of Sir2/4 in Silencing of DNA Breakage and Recombination on Mouse YACs during Yeast Meiosis. <i>Molecular Biology of the Cell</i> , 2005, 16, 1449-1455.	0.9	5
63	Cell Type-Specific Targeting Strategies for Optogenetics. <i>Neuromethods</i> , 2018, , 25-42.	0.2	4
64	Localized chemogenetic silencing of inhibitory neurons: a novel mouse model of focal cortical epileptic activity. <i>Cerebral Cortex</i> , 2023, 33, 2838-2856.	1.6	4
65	Designer Drugs for Designer Receptors: Unlocking the Translational Potential of Chemogenetics. <i>Trends in Pharmacological Sciences</i> , 2019, 40, 362-364.	4.0	3
66	Building Bridges through Science. <i>Neuron</i> , 2017, 96, 730-735.	3.8	2
67	In Vivo Optophysiology Reveals Lateral Inhibition among Layer 1 Interneurons. <i>Neuron</i> , 2020, 106, 14-16.	3.8	1
68	Viral Vector-Based Techniques for Optogenetic Modulation In Vivo. <i>Neuromethods</i> , 2014, , 289-310.	0.2	1
69	1PT128 Crystal Structure of a light-gated cation channel, channelrhodopsin(The 50th Annual Meeting) Tj ETQq1 1 0.784314 rgBT /Over	0.0	0
70	12. Relapse to Methamphetamine Seeking After Choice-Based Voluntary Abstinence (Contingency) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 S5.	0.7	0
71	Two-Photon Imaging and Manipulation of Neural Networks with High Spatial Resolution and Minimal Crosstalk. , 2018, , .		0
72	High-efficiency holographic stimulation of blue light-sensitive excitatory opsins in vivo. , 2019, , .		0