

Vikaas S Sohal

List of Publications by Year in descending order

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Version: 2024-02-01

92
papers

9,619
citations

94433

37
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66911

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103
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103
docs citations

103
times ranked

12334
citing authors

#	ARTICLE	IF	CITATIONS
1	Convergence of Clinically Relevant Manipulations on Dopamine-Regulated Prefrontal Activity Underlying Stress Coping Responses. <i>Biological Psychiatry</i> , 2022, 91, 810-820.	1.3	6
2	Transforming Discoveries About Cortical Microcircuits and Gamma Oscillations Into New Treatments for Cognitive Deficits in Schizophrenia. <i>American Journal of Psychiatry</i> , 2022, 179, 267-276.	7.2	16
3	Top-down control of hippocampal signal-to-noise by prefrontal long-range inhibition. <i>Cell</i> , 2022, 185, 1602-1617.e17.	28.9	48
4	Fate mapping of neural stem cell niches reveals distinct origins of human cortical astrocytes. <i>Science</i> , 2022, 376, 1441-1446.	12.6	25
5	Selective Inhibitory Circuit Dysfunction after Chronic Frontal Lobe Contusion. <i>Journal of Neuroscience</i> , 2022, 42, 5361-5372.	3.6	2
6	Information diversity in individual auditory cortical neurons is associated with functionally distinct coordinated neuronal ensembles. <i>Scientific Reports</i> , 2021, 11, 4064.	3.3	2
7	Dynamic patterns of correlated activity in the prefrontal cortex encode information about social behavior. <i>PLoS Biology</i> , 2021, 19, e3001235.	5.6	19
8	Integrated Stress Response Inhibitor Reverses Sex-Dependent Behavioral and Cell-Specific Deficits after Mild Repetitive Head Trauma. <i>Journal of Neurotrauma</i> , 2020, 37, 1370-1380.	3.4	29
9	GluN2D-mediated excitatory drive onto medial prefrontal cortical PV+ fast-spiking inhibitory interneurons. <i>PLoS ONE</i> , 2020, 15, e0233895.	2.5	25
10	Interneuron Transplantation Rescues Social Behavior Deficits without Restoring Wild-Type Physiology in a Mouse Model of Autism with Excessive Synaptic Inhibition. <i>Journal of Neuroscience</i> , 2020, 40, 2215-2227.	3.6	17
11	Enhancing WNT Signaling Restores Cortical Neuronal Spine Maturation and Synaptogenesis in Tbr1 Mutants. <i>Cell Reports</i> , 2020, 31, 107495.	6.4	32
12	Cross-hemispheric gamma synchrony between prefrontal parvalbumin interneurons supports behavioral adaptation during rule shift learning. <i>Nature Neuroscience</i> , 2020, 23, 892-902.	14.8	50
13	Altered hippocampal-prefrontal communication during anxiety-related avoidance in mice deficient for the autism-associated gene Pogz. <i>ELife</i> , 2020, 9, .	6.0	22
14	Regulatory Elements Inserted into AAVs Confer Preferential Activity in Cortical Interneurons. <i>ENeuro</i> , 2020, 7, .	1.9	4
15	Regulatory Elements Inserted into AAVs Confer Preferential Activity in Cortical Interneurons. <i>ENeuro</i> , 2020, 7, ENEURO.0211-20.2020.	1.9	12
16	GABAergic cell transplants in the anterior cingulate cortex reduce neuropathic pain aversiveness. <i>Brain</i> , 2019, 142, 2655-2669.	7.6	49
17	Tsc1 represses parvalbumin expression and fast-spiking properties in somatostatin lineage cortical interneurons. <i>Nature Communications</i> , 2019, 10, 4994.	12.8	39
18	Excitation-inhibition balance as a framework for investigating mechanisms in neuropsychiatric disorders. <i>Molecular Psychiatry</i> , 2019, 24, 1248-1257.	7.9	531

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19	VIP Interneurons Contribute to Avoidance Behavior by Regulating Information Flow across Hippocampal-Prefrontal Networks. <i>Neuron</i> , 2019, 102, 1223-1234.e4.	8.1	70
20	Microcircuit Mechanisms through which Mediodorsal Thalamic Input to Anterior Cingulate Cortex Exacerbates Pain-Related Aversion. <i>Neuron</i> , 2019, 102, 944-959.e3.	8.1	106
21	Ultrasonic sculpting of virtual optical waveguides in tissue. <i>Nature Communications</i> , 2019, 10, 92.	12.8	39
22	A Shared Vision for Machine Learning in Neuroscience. <i>Journal of Neuroscience</i> , 2018, 38, 1601-1607.	3.6	121
23	Roles of Prefrontal Cortex and Mediodorsal Thalamus in Task Engagement and Behavioral Flexibility. <i>Journal of Neuroscience</i> , 2018, 38, 2569-2578.	3.6	71
24	Mouse <i>Cntnap2</i> and Human <i>CNTNAP2</i> ASD Alleles Cell Autonomously Regulate PV+ Cortical Interneurons. <i>Cerebral Cortex</i> , 2018, 28, 3868-3879.	2.9	71
25	The sodium channel activator Lu AE98134 normalizes the altered firing properties of fast spiking interneurons in <i>Dlx5/6+/-</i> mice. <i>Neuroscience Letters</i> , 2018, 662, 29-35.	2.1	5
26	An Amygdala-Hippocampus Subnetwork that Encodes Variation in Human Mood. <i>Cell</i> , 2018, 175, 1688-1700.e14.	28.9	119
27	Neonatal <i>Tbr1</i> Dosage Controls Cortical Layer 6 Connectivity. <i>Neuron</i> , 2018, 100, 831-845.e7.	8.1	83
28	The CaMKII/NMDA receptor complex controls hippocampal synaptic transmission by kinase-dependent and independent mechanisms. <i>Nature Communications</i> , 2018, 9, 2069.	12.8	110
29	Coordinated neuronal ensembles in primary auditory cortical columns. <i>ELife</i> , 2018, 7, .	6.0	38
30	The Psychiatric Cell Map Initiative: A Convergent Systems Biological Approach to Illuminating Key Molecular Pathways in Neuropsychiatric Disorders. <i>Cell</i> , 2018, 174, 505-520.	28.9	108
31	Repeated Mild Head Injury Leads to Wide-Ranging Deficits in Higher-Order Cognitive Functions Associated with the Prefrontal Cortex. <i>Journal of Neurotrauma</i> , 2018, 35, 2425-2434.	3.4	37
32	Upconverting nanoparticle micro-lightbulbs designed for deep tissue optical stimulation and imaging. <i>Biomedical Optics Express</i> , 2018, 9, 4359.	2.9	16
33	D3 Receptors Regulate Excitability in a Unique Class of Prefrontal Pyramidal Cells. <i>Journal of Neuroscience</i> , 2017, 37, 5846-5860.	3.6	77
34	Dynamic, Cell-Type-Specific Roles for GABAergic Interneurons in a Mouse Model of Optogenetically Inducible Seizures. <i>Neuron</i> , 2017, 93, 291-298.	8.1	128
35	Dopamine D2 Receptors Modulate Pyramidal Neurons in Mouse Medial Prefrontal Cortex through a Stimulatory G-Protein Pathway. <i>Journal of Neuroscience</i> , 2017, 37, 10063-10073.	3.6	26
36	Tonic or Phasic Stimulation of Dopaminergic Projections to Prefrontal Cortex Causes Mice to Maintain or Deviate from Previously Learned Behavioral Strategies. <i>Journal of Neuroscience</i> , 2017, 37, 8315-8329.	3.6	84

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37	The Cytokine CXCL12 Promotes Basket Interneuron Inhibitory Synapses in the Medial Prefrontal Cortex. <i>Cerebral Cortex</i> , 2017, 27, 4303-4313.	2.9	24
38	Serotonin enhances excitability and gamma frequency temporal integration in mouse prefrontal fast-spiking interneurons. <i>ELife</i> , 2017, 6, .	6.0	39
39	Immediate Mood Scaler: Tracking Symptoms of Depression and Anxiety Using a Novel Mobile Mood Scale. <i>JMIR MHealth and UHealth</i> , 2017, 5, e44.	3.7	63
40	Serotonin 1B Receptors Regulate Prefrontal Function by Gating Callosal and Hippocampal Inputs. <i>Cell Reports</i> , 2016, 17, 2882-2890.	6.4	41
41	Correlations between prefrontal neurons form a small-world network that optimizes the generation of multineuron sequences of activity. <i>Journal of Neurophysiology</i> , 2016, 115, 2359-2375.	1.8	9
42	Energy-Looping Nanoparticles: Harnessing Excited-State Absorption for Deep-Tissue Imaging. <i>ACS Nano</i> , 2016, 10, 8423-8433.	14.6	122
43	Making the Right Connections. <i>Biological Psychiatry</i> , 2016, 80, 502-503.	1.3	0
44	How Close Are We to Understanding What (if Anything) δ^3 Oscillations Do in Cortical Circuits?. <i>Journal of Neuroscience</i> , 2016, 36, 10489-10495.	3.6	81
45	Stressing out the Social Network. <i>Neuron</i> , 2016, 91, 210-213.	8.1	0
46	Putative Microcircuit-Level Substrates for Attention Are Disrupted in Mouse Models of Autism. <i>Biological Psychiatry</i> , 2016, 79, 667-675.	1.3	23
47	Of Mice, Men, and Microbial Opsins: How Optogenetics Can Help Hone Mouse Models of Mental Illness. <i>Biological Psychiatry</i> , 2016, 79, 47-52.	1.3	20
48	Deep tissue targeted near-infrared optogenetic stimulation using fully implantable upconverting light bulbs. , 2015, 2015, 821-4.		1
49	Neural Oscillations and Synchrony in Brain Dysfunction and Neuropsychiatric Disorders. <i>JAMA Psychiatry</i> , 2015, 72, 840.	11.0	115
50	Gamma Rhythms Link Prefrontal Interneuron Dysfunction with Cognitive Inflexibility in $Dlx5/6+/\Delta^+$ Mice. <i>Neuron</i> , 2015, 85, 1332-1343.	8.1	292
51	Tether-less Implantable Upconverting Microscale Light Bulbs for Deep Brain Neural Stimulation and Imaging. , 2015, , .		0
52	The Parvalbumin/Somatostatin Ratio Is Increased in Pten Mutant Mice and by Human PTEN ASD Alleles. <i>Cell Reports</i> , 2015, 11, 944-956.	6.4	111
53	Identifying Pathways Leading to Prefrontal GABA-ergic Interneuron Dysfunction in Schizophrenia. <i>American Journal of Psychiatry</i> , 2014, 171, 906-909.	7.2	2
54	Pyramidal Neurons in Prefrontal Cortex Receive Subtype-Specific Forms of Excitation and Inhibition. <i>Neuron</i> , 2014, 81, 61-68.	8.1	177

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55	Optogenetic approaches for investigating neural pathways implicated in schizophrenia and related disorders. <i>Human Molecular Genetics</i> , 2014, 23, R64-R68.	2.9	16
56	A Class of GABAergic Neurons in the Prefrontal Cortex Sends Long-Range Projections to the Nucleus Accumbens and Elicits Acute Avoidance Behavior. <i>Journal of Neuroscience</i> , 2014, 34, 11519-11525.	3.6	152
57	Releasing the Brake Drives Fear Behavior. <i>Science Translational Medicine</i> , 2014, 6, .	12.4	0
58	You Have Your Father's Nose. <i>Science Translational Medicine</i> , 2014, 6, .	12.4	0
59	Serotonin Gives Oxytocin a Helping Hand. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	3
60	Neurons Themselves May Shy Away from Normal Interactions in Autism. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	0
61	Stimulating the Prefrontal Cortex to Undo Stimulant Addiction. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	0
62	Autism in the Balance. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	0
63	Transplanting Interneuron Precursors for Epilepsy Control. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	0
64	Seeing the Big Picture in Fragile X Syndrome. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	0
65	Too Much of a Good Thing?. <i>Science Translational Medicine</i> , 2013, 5, .	12.4	1
66	Synaptic Activity Unmasks Dopamine D2 Receptor Modulation of a Specific Class of Layer V Pyramidal Neurons in Prefrontal Cortex. <i>Journal of Neuroscience</i> , 2012, 32, 4959-4971.	3.6	194
67	Chronic reduction in inhibition reduces receptive field size in mouse auditory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 13829-13834.	7.1	30
68	Insights into Cortical Oscillations Arising from Optogenetic Studies. <i>Biological Psychiatry</i> , 2012, 71, 1039-1045.	1.3	99
69	Responsive Neurostimulation Suppresses Synchronized Cortical Rhythms in Patients with Epilepsy. <i>Neurosurgery Clinics of North America</i> , 2011, 22, 481-488.	1.7	63
70	Neocortical excitation/inhibition balance in information processing and social dysfunction. <i>Nature</i> , 2011, 477, 171-178.	27.8	2,036
71	Ultrafast optogenetic control. <i>Nature Neuroscience</i> , 2010, 13, 387-392.	14.8	660
72	<i>Dlx5</i> and <i>Dlx6</i> Regulate the Development of Parvalbumin-Expressing Cortical Interneurons. <i>Journal of Neuroscience</i> , 2010, 30, 5334-5345.	3.6	162

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73	Parvalbumin neurons and gamma rhythms enhance cortical circuit performance. <i>Nature</i> , 2009, 459, 698-702.	27.8	2,258
74	Intrinsic and Synaptic Dynamics Interact to Generate Emergent Patterns of Rhythmic Bursting in Thalamocortical Neurons. <i>Journal of Neuroscience</i> , 2006, 26, 4247-4255.	3.6	47
75	Inhibitory coupling specifically generates emergent gamma oscillations in diverse cell types. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 18638-18643.	7.1	41
76	Inhibitory Interconnections Control Burst Pattern and Emergent Network Synchrony in Reticular Thalamus. <i>Journal of Neuroscience</i> , 2003, 23, 8978-8988.	3.6	75
77	Dynamic GABA _A Receptor Subtype-Specific Modulation of the Synchrony and Duration of Thalamic Oscillations. <i>Journal of Neuroscience</i> , 2003, 23, 3649-3657.	3.6	86
78	Reciprocal inhibition controls the oscillatory state in thalamic networks. <i>Neurocomputing</i> , 2002, 44-46, 653-659.	5.9	9
79	It Takes T to Tango. <i>Neuron</i> , 2001, 31, 3-4.	8.1	10
80	Clonazepam suppresses oscillations in rat thalamic slices. <i>Neurocomputing</i> , 2001, 38-40, 907-913.	5.9	0
81	A model for experience-dependent changes in the responses of inferotemporal neurons. <i>Network: Computation in Neural Systems</i> , 2000, 11, 169-190.	3.6	45
82	Reciprocal inhibitory connections produce desynchronizing phase lags during intrathalamic oscillations. <i>Neurocomputing</i> , 2000, 32-33, 509-516.	5.9	3
83	Reciprocal Inhibitory Connections Regulate the Spatiotemporal Properties of Intrathalamic Oscillations. <i>Journal of Neuroscience</i> , 2000, 20, 1735-1745.	3.6	90
84	A model for experience-dependent changes in the responses of inferotemporal neurons. <i>Network: Computation in Neural Systems</i> , 2000, 11, 169-190.	3.6	19
85	Long-range connections synchronize rather than spread intrathalamic oscillatory activity: Computational modeling and in vitro electrophysiology. <i>Neurocomputing</i> , 1999, 26-27, 525-531.	5.9	0
86	GABAB modulation improves sequence disambiguation in computational models of hippocampal region CA3. <i>Hippocampus</i> , 1998, 8, 171-193.	1.9	40
87	Changes in GABAB Modulation During a Theta Cycle May Be Analogous to the Fall of Temperature During Annealing. <i>Neural Computation</i> , 1998, 10, 869-882.	2.2	72
88	Localization of CCK Receptors in Thalamic Reticular Neurons: A Modeling Study. <i>Journal of Neurophysiology</i> , 1998, 79, 2820-2824.	1.8	8
89	Long-Range Connections Synchronize Rather Than Spread Intrathalamic Oscillations: Computational Modeling and In Vitro Electrophysiology. <i>Journal of Neurophysiology</i> , 1998, 80, 1736-1751.	1.8	15
90	A Mathematical Description for Gabaergic Modulation of Sequence Disambiguation in Hippocampal Region CA3. , 1998, , 525-530.		0

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91	CABAB modulation improves sequence disambiguation in computational models of hippocampal region CA3. <i>Hippocampus</i> , 1998, 8, 171-193.	1.9	1
92	A Model of Changes in Inferotemporal Activity during a Delayed Match-To-Sample Task. , 1997, , 845-850.		1