David Kleinfeld

List of Publications by Year
in descending order

165 papers	17,321 citations	15504 65 h-index	16650 123 g-index
179 all docs	179 docs citations	179 times ranked	13938 citing authors

#	Article	IF	Citations
1	A vibrissa pathway that activates the limbic system. ELife, 2022, 11, .	6.0	5
2	Probing Neuropeptide Volume Transmission In Vivo by Simultaneous Nearâ€Infrared Lightâ€Triggered Release and Optical Sensing**. Angewandte Chemie - International Edition, 2022, 61, .	13.8	14
3	Voxelized simulation of cerebral oxygen perfusion elucidates hypoxia in aged mouse cortex. PLoS Computational Biology, 2021, 17, e1008584.	3.2	16
4	Endothelial struts enable the generation of large lumenized blood vessels de novo. Nature Cell Biology, 2021, 23, 322-329.	10.3	4
5	Mathematical synthesis of the cortical circulation for the whole mouse brainâ€”part II: Microcirculatory closure. Microcirculation, 2021, 28, e12687.	1.8	13
6	Constructing an adult orofacial premotor atlas in Allen mouse CCF. ELife, 2021, 10, .	6.0	24
7	Brain microvasculature has a common topology with local differences in geometry that match metabolic load. Neuron, 2021, 109, 1168-1187.e13.	8.1	57
8	Specific populations of basal ganglia output neurons target distinct brain stem areas while collateralizing throughout the diencephalon. Neuron, 2021, 109, 1721-1738.e4.	8.1	72
9	PIP ₂ as the â€œcoin of the realmâ€•for neurovascular coupling. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	1
10	Abortive intussusceptive angiogenesis causes multi-cavernous vascular malformations. ELife, 2021, 10, .	6.0	8
11	A suite of neurophotonic tools to underpin the contribution of internal brain states in fMRI. Current Opinion in Biomedical Engineering, 2021, 18, 100273.	3.4	6
12	Reinforcement learning links spontaneous cortical dopamine impulses to reward. Current Biology, 2021, 31, 4111-4119.e4.	3.9	12
13	Assessment of single-vessel cerebral blood velocity by phase contrast fMRI. PLoS Biology, 2021, 19, e3000923.	5.6	9
14	Reversibly Modulating the Bloodâ€“Brain Barrier by Laser Stimulation of Molecular-Targeted Nanoparticles. Nano Letters, 2021, 21, 9805-9815.	9.1	49
15	Contribution of animal models toward understanding resting state functional connectivity. NeuroImage, 2021, 245, 118630.	4.2	27
16	The global configuration of visual stimuli alters co-fluctuations of cross-hemispheric human brain activity. Journal of Neuroscience, 2021, 41, JN-RM-3214-20.	3.6	3
17	Ultra-slow Oscillations in fMRI and Resting-State Connectivity: Neuronal and Vascular Contributions and Technical Confounds. Neuron, 2020, 107, 782-804.	8.1	105
18	Cerebrospinal fluid influx drives acute ischemic tissue swelling. Science, 2020, 367, .	12.6	300

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19	Orofacial Movements Involve Parallel Corticobulbar Projections from Motor Cortex to Trigeminal Premotor Nuclei. Neuron, 2019, 104, 765-780.e3.	8.1	30
20	Can One Concurrently Record Electrical Spikes from Every Neuron in a Mammalian Brain?. Neuron, 2019, 103, 1005-1015.	8.1	46
21	Direct wavefront sensing enables functional imaging of infragranular axons and spines. Nature Methods, 2019, 16, 615-618.	19.0	71
22	Brain Capillary Networks Across Species: A few Simple Organizational Requirements Are Sufficient to Reproduce Both Structure and Function. Frontiers in Physiology, 2019, 10, 233.	2.8	70
23	An active texture-based digital atlas enables automated mapping of structures and markers across brains. Nature Methods, 2019, 16, 341-350.	19.0	26
24	Awake Mouse Imaging: From Two-Photon Microscopy to Blood Oxygen Levelâ€“Dependent Functional Magnetic Resonance Imaging. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2019, 4, 533-542.	1.5	49
25	Functional brain stem circuits for control of nose motion. Journal of Neurophysiology, 2019, 121, 205-217.	1.8	15
26	CNIFERS: CELL-BASED BIOSENSORS WITH NANOMOLAR SENSITIVITY TO IN VIVO CHANGES IN NEUROMODULATION. , 2019, , 19-32.		0
27	Targeted Occlusion to Surface and Deep Vessels in Neocortex Via Linear and Nonlinear Optical Absorption. Springer Series in Translational Stroke Research, 2019, , 145-162.	0.1	0
28	Ultra-Slow Single-Vessel BOLD and CBV-Based fMRI Spatiotemporal Dynamics and Their Correlation with Neuronal Intracellular Calcium Signals. Neuron, 2018, 97, 925-939.e5.	8.1	113
29	Circuits in the Rodent Brainstem that Control Whisking in Concert with Other Orofacial Motor Actions. Neuroscience, 2018, 368, 152-170.	2.3	57
30	Simulations of blood as a suspension predicts a depth dependent hematocrit in the circulation throughout the cerebral cortex. PLoS Computational Biology, 2018, 14, e1006549.	3.2	25
31	Comparing two classes of biological distribution systems using network analysis. PLoS Computational Biology, 2018, 14, e1006428.	3.2	15
32	Coordination of Orofacial Motor Actions into Exploratory Behavior by Rat. Current Biology, 2017, 27, 688-696.	3.9	87
33	Entrainment of Arteriole Vasomotor Fluctuations by Neural Activity Is a Basis of Blood-Oxygenation-Level-Dependent â€œResting-Stateâ€•Connectivity. Neuron, 2017, 96, 936-948.e3.	8.1	233
34	The impact of vessel size, orientation and intravascular contribution on the neurovascular fingerprint of BOLD bSSFP fMRI. NeuroImage, 2017, 163, 13-23.	4.2	49
35	Parallel Inhibitory and Excitatory Trigemino-Facial Feedback Circuitry for Reflexive Vibrissa Movement. Neuron, 2017, 95, 673-682.e4.	8.1	36
36	The capillary bed offers the largest hemodynamic resistance to the cortical blood supply. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 52-68.	4.3	186

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37	Depth-dependent flow and pressure characteristics in cortical microvascular networks. PLoS Computational Biology, 2017, 13, e1005392.	3.2	99
38	Circuits in the Ventral Medulla That Phase-Lock Motoneurons for Coordinated Sniffing and Whisking. Neural Plasticity, 2016, 2016, 1-9.	2.2	20
39	Neurovascular and Immuno-Imaging: From Mechanisms to Therapies. Proceedings of the Inaugural Symposium. Frontiers in Neuroscience, 2016, 10, 46.	2.8	3
40	Cell type specificity of neurovascular coupling in cerebral cortex. ELife, 2016, 5, .	6.0	176
41	Inhibition, Not Excitation, Drives Rhythmic Whisking. Neuron, 2016, 90, 374-387.	8.1	63
42	Roger Tsien 1952â€“2016. Nature Neuroscience, 2016, 19, 1269-1270.	14.8	1
43	Precision mapping of the vibrissa representation within murine primary somatosensory cortex. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150351.	4.0	31
44	The roadmap for estimation of cell-type-specific neuronal activity from non-invasive measurements. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150356.	4.0	41
45	Analysis of Neuronal Spike Trains, Deconstructed. Neuron, 2016, 91, 221-259.	8.1	71
46	Construction of Cell-based Neurotransmitter Fluorescent Engineered Reporters (CNiFERs) for Optical Detection of Neurotransmitters In Vivo. Journal of Visualized Experiments, 2016, , .	0.3	11
47	Whisking, Sniffing, and the Hippocampal Î¸-Rhythm: A Tale of Two Oscillators. PLoS Biology, 2016, 14, e1002385.	5.6	39
48	Deflection of a vibrissa leads to a gradient of strain across mechanoreceptors in a mystacial follicle. Journal of Neurophysiology, 2015, 114, 138-145.	1.8	28
49	Muscles Involved in Naris Dilation and Nose Motion in Rat. Anatomical Record, 2015, 298, 546-553.	1.4	21
50	Robust and Fragile Aspects of Cortical Blood Flow in Relation to the Underlying Angioarchitecture. Microcirculation, 2015, 22, 204-218.	1.8	78
51	Fluorescently Labeled Peptide Increases Identification of Degenerated Facial Nerve Branches during Surgery and Improves Functional Outcome. PLoS ONE, 2015, 10, e0119600.	2.5	31
52	Vibrissa Self-Motion and Touch Are Reliably Encoded along the Same Somatosensory Pathway from Brainstem through Thalamus. PLoS Biology, 2015, 13, e1002253.	5.6	113
53	Feedback in the brainstem: An excitatory disynaptic pathway for control of whisking. Journal of Comparative Neurology, 2015, 523, 921-942.	1.6	18
54	The Musculature That Drives Active Touch by Vibrissae and Nose in Mice. Anatomical Record, 2015, 298, 1347-1358.	1.4	37

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55	Juxtacellular Monitoring and Localization of Single Neurons within Sub-cortical Brain Structures of Alert, Head-restrained Rats. Journal of Visualized Experiments, 2015, , .	0.3	7
56	Ultra-large field-of-view two-photon microscopy. Optics Express, 2015, 23, 13833.	3.4	111
57	The Central Pattern Generator for Rhythmic Whisking. , 2015, , 149-165.		3
58	Spectral Methods for Functional Brain Imaging. Cold Spring Harbor Protocols, 2014, 2014, pdb.top081075.	0.3	14
59	Activation and measurement of free whisking in the lightly anesthetized rodent. Nature Protocols, 2014, 9, 1792-1802.	12.0	13
60	More than a rhythm of life: breathing as a binder of orofacial sensation. Nature Neuroscience, 2014, 17, 647-651.	14.8	92
61	Cell-based reporters reveal in vivo dynamics of dopamine and norepinephrine release in murine cortex. Nature Methods, 2014, 11, 1245-1252.	19.0	141
62	How the brainstem controls orofacial behaviors comprised of rhythmic actions. Trends in Neurosciences, 2014, 37, 370-380.	8.6	158
63	Imaging Vasodynamics in the Awake Mouse Brain with Two-Photon Microscopy. Neuromethods, 2014, , 55-73.	0.3	8
64	Two-Photon Microscopy to Measure Blood Flow and Concurrent Brain Cell Activity. Neuromethods, 2014, , 273-290.	0.3	1
65	The Brainstem Oscillator for Whisking and the Case for Breathing as the Master Clock for Orofacial Motor Actions. Cold Spring Harbor Symposia on Quantitative Biology, 2014, 79, 29-39.	1.1	27
66	ReaChR: a red-shifted variant of channelrhodopsin enables deep transcranial optogenetic excitation. Nature Neuroscience, 2013, 16, 1499-1508.	14.8	721
67	The Challenge of Connecting the Dots in the B.R.A.I.N.. Neuron, 2013, 80, 270-274.	8.1	73
68	The smallest stroke: occlusion of one penetrating vessel leads to infarction and a cognitive deficit. Nature Neuroscience, 2013, 16, 55-63.	14.8	284
69	Hierarchy of orofacial rhythms revealed through whisking and breathing. Nature, 2013, 497, 205-210.	27.8	280
70	The cortical angiome: an interconnected vascular network with noncolumnar patterns of blood flow. Nature Neuroscience, 2013, 16, 889-897.	14.8	471
71	All-optical osteotomy to create windows for transcranial imaging in mice. Optics Express, 2013, 21, 23160.	3.4	20
72	Two-Photon Imaging of Blood Flow in the Rat Cortex. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot076513.	0.3	18

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73	Optically Induced Occlusion of Single Blood Vessels in Rodent Neocortex. Cold Spring Harbor Protocols, 2013, 2013, pdb.prot079509.	0.3	12
74	Mediation of Muscular Control of Rhinarial Motility in Rats by the Nasal Cartilaginous Skeleton. Anatomical Record, 2013, 296, 1821-1832.	1.4	13
75	A Polished and Reinforced Thinned-skull Window for Long-term Imaging of the Mouse Brain. Journal of Visualized Experiments, 2012, , .	0.3	104
76	Vectorization of optically sectioned brain microvasculature: Learning aids completion of vascular graphs by connecting gaps and deleting open-ended segments. Medical Image Analysis, 2012, 16, 1241-1258.	11.6	28
77	Two-Photon Microscopy as a Tool to Study Blood Flow and Neurovascular Coupling in the Rodent Brain. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1277-1309.	4.3	405
78	Dorsorostral Snout Muscles in the Rat Subserve Coordinated Movement for Whisking and Sniffing. Anatomical Record, 2012, 295, 1181-1191.	1.4	40
79	Prospect for feedback guided surgery with ultra-short pulsed laser light. Current Opinion in Neurobiology, 2012, 22, 24-33.	4.2	42
80	Sniffing and whisking in rodents. Current Opinion in Neurobiology, 2012, 22, 243-250.	4.2	155
81	Differential Multiphoton Laser Scanning Microscopy. IEEE Journal of Selected Topics in Quantum Electronics, 2012, 18, 14-28.	2.9	10
82	Primary Motor Cortex Reports Efferent Control of Vibrissa Motion on Multiple Timescales. Neuron, 2011, 72, 344-356.	8.1	167
83	Neuronal Basis for Object Location in the Vibrissa Scanning Sensorimotor System. Neuron, 2011, 72, 455-468.	8.1	152
84	A Guide to Delineate the Logic of Neurovascular Signaling in the Brain. Frontiers in Neuroenergetics, 2011, 3, 1.	5.3	71
85	Characterizing Ligand-Gated Ion Channel Receptors with Genetically Encoded Ca++ Sensors. PLoS ONE, 2011, 6, e16519.	2.5	35
86	Fluctuating and sensory-induced vasodynamics in rodent cortex extend arteriole capacity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8473-8478.	7.1	257
87	Quality Metrics to Accompany Spike Sorting of Extracellular Signals. Journal of Neuroscience, 2011, 31, 8699-8705.	3.6	358
88	Large-Scale Automated Histology in the Pursuit of Connectomes. Journal of Neuroscience, 2011, 31, 16125-16138.	3.6	151
89	Photon counting, censor corrections, and lifetime imaging for improved detection in two-photon microscopy. Journal of Neurophysiology, 2011, 105, 3106-3113.	1.8	35
90	Rapid determination of particle velocity from space-time images using the Radon transform. Journal of Computational Neuroscience, 2010, 29, 5-11.	1.0	129

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91	Chronic optical access through a polished and reinforced thinned skull. Nature Methods, 2010, 7, 981-984.	19.0	382
92	An in vivo biosensor for neurotransmitter release and in situ receptor activity. Nature Neuroscience, 2010, 13, 127-132.	14.8	110
93	Topological basis for the robust distribution of blood to rodent neocortex. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12670-12675.	7.1	158
94	Automatic Identification of Fluorescently Labeled Brain Cells for Rapid Functional Imaging. Journal of Neurophysiology, 2010, 104, 1803-1811.	1.8	53
95	Optimizing the fluorescent yield in two-photon laser scanning microscopy with dispersion compensation. Optics Express, 2010, 18, 13661.	3.4	34
96	Temporally focused femtosecond laser pulses for low numerical aperture micromachining through optically transparent materials. Optics Express, 2010, 18, 18086.	3.4	118
97	Spatio-temporally focused femtosecond laser pulses for nonreciprocal writing in optically transparent materials. Optics Express, 2010, 18, 24673.	3.4	138
98	Correlations of Neuronal and Microvascular Densities in Murine Cortex Revealed by Direct Counting and Colocalization of Nuclei and Vessels. Journal of Neuroscience, 2009, 29, 14553-14570.	3.6	500
99	Enter the ratrix. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 19209-19210.	7.1	1
100	Severe Bloodâ€“Brain Barrier Disruption and Surrounding Tissue Injury. Stroke, 2009, 40, e666-74.	2.0	107
101	A Proposal for a Coordinated Effort for the Determination of Brainwide Neuroanatomical Connectivity in Model Organisms at a Mesoscopic Scale. PLoS Computational Biology, 2009, 5, e1000334.	3.2	242
102	Active Dilation of Penetrating Arterioles Restores Red Blood Cell Flux to Penumbral Neocortex after Focal Stroke. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 738-751.	4.3	125
103	Phase-to-rate transformations encode touch in cortical neurons of a scanning sensorimotor system. Nature Neuroscience, 2009, 12, 492-501.	14.8	164
104	Plasma-mediated ablation: an optical tool for submicrometer surgery on neuronal and vascular systems. Current Opinion in Biotechnology, 2009, 20, 90-99.	6.6	81
105	Acute Vascular Disruption and Aquaporin 4 Loss After Stroke. Stroke, 2009, 40, 2182-2190.	2.0	62
106	In Vivo Two-Photon Laser Scanning Microscopy with Concurrent Plasma-Mediated Ablation Principles and Hardware Realization. Frontiers in Neuroscience, 2009, , 59-115.	0.0	20
107	The glial cell response is an essential component of hypoxia-induced erythropoiesis in mice. Journal of Clinical Investigation, 2009, 119, 3373-83.	8.2	82
108	Two-Photon Laser Scanning Microscopy as a Tool to Study Cortical Vasodynamics Under Normal and Ischemic Conditions. , 2009, , 245-261.		0

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109	'Where' and 'what' in the whisker sensorimotor system. Nature Reviews Neuroscience, 2008, 9, 601-612.	10.2	534
110	Finding coherence in spontaneous oscillations. Nature Neuroscience, 2008, 11, 991-993.	14.8	59
111	Chapter 10 In Vivo Measurements of Blood Flow and Glial Cell Function with Twoâ€Photon Laserâ€Scanning Microscopy. Methods in Enzymology, 2008, 444, 231-254.	1.0	38
112	Biomechanics of the Vibrissa Motor Plant in Rat: Rhythmic Whisking Consists of Triphasic Neuromuscular Activity. Journal of Neuroscience, 2008, 28, 3438-3455.	3.6	142
113	Advancing multifocal nonlinear microscopy: development and application of a novel multibeam Yb:KGd(WO_4)_2 oscillator. Optics Express, 2008, 16, 17574.	3.4	40
114	Stimulus-Induced Changes in Blood Flow and 2-Deoxyglucose Uptake Dissociate in Ipsilateral Somatosensory Cortex. Journal of Neuroscience, 2008, 28, 14347-14357.	3.6	184
115	Texture Coding in the Rat Whisker System: Slip-Stick Versus Differential Resonance. PLoS Biology, 2008, 6, e215.	5.6	202
116	Suppressed Neuronal Activity and Concurrent Arteriolar Vasoconstriction May Explain Negative Blood Oxygenation Level-Dependent Signal. Journal of Neuroscience, 2007, 27, 4452-4459.	3.6	345
117	Active Spatial Perception in the Vibrissa Scanning Sensorimotor System. PLoS Biology, 2007, 5, e15.	5.6	147
118	Penetrating arterioles are a bottleneck in the perfusion of neocortex. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 365-370.	7.1	341
119	Large two-photon absorptivity of hemoglobin in the infrared range of 780â€“880nm. Journal of Chemical Physics, 2007, 126, 025102.	3.0	38
120	Wilder Penfield in the Age of YouTube: Visualizing the Sequential Activation of Sensorimotor Areas across Neocortex. Neuron, 2007, 56, 760-762.	8.1	3
121	Is There a Common Origin to Surround-Inhibition as Seen Through Electrical Activity Versus Hemodynamic Changes? Focus on â€œDuration-Dependent Response in SI to Vibrotactile Stimulation in Squirrel Monkeyâ€• Journal of Neurophysiology, 2007, 97, 1880-1882.	1.8	11
122	Seeing What the Mouse Sees with Its Vibrissae: A Matter of Behavioral State. Neuron, 2006, 50, 524-526.	8.1	14
123	Coding of Stimulus Frequency by Latency in Thalamic Networks Through the Interplay of GABAB-Mediated Feedback and Stimulus Shape. Journal of Neurophysiology, 2006, 95, 1735-1750.	1.8	21
124	Targeted insult to subsurface cortical blood vessels using ultrashort laser pulses: three models of stroke. Nature Methods, 2006, 3, 99-108.	19.0	306
125	MPScope: A versatile software suite for multiphoton microscopy. Journal of Neuroscience Methods, 2006, 156, 351-359.	2.5	104
126	Active sensation: insights from the rodent vibrissa sensorimotor system. Current Opinion in Neurobiology, 2006, 16, 435-444.	4.2	347

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127	Two-Photon Imaging of Cortical Surface Microvessels Reveals a Robust Redistribution in Blood Flow after Vascular Occlusion. PLoS Biology, 2006, 4, e22.	5.6	329
128	Spectral Mixing in Nervous Systems: Experimental Evidence and Biologically Plausible Circuits. Progress of Theoretical Physics Supplement, 2006, 161, 86-98.	0.1	9
129	Exploratory Whisking by Rat Is Not Phase Locked to the Hippocampal Theta Rhythm. Journal of Neuroscience, 2006, 26, 6518-6522.	3.6	36
130	Activation of Nucleus Basalis Facilitates Cortical Control of a Brain Stem Motor Program. Journal of Neurophysiology, 2005, 94, 699-711.	1.8	39
131	From Art to Engineering? The Rise of In Vivo Mammalian Electrophysiology via Genetically Targeted Labeling and Nonlinear Imaging. PLoS Biology, 2005, 3, e355.	5.6	21
132	Femtosecond laser-drilled capillary integrated into a microfluidic device. Applied Physics Letters, 2005, 86, 201106.	3.3	115
133	Positive Feedback in a Brainstem Tactile Sensorimotor Loop. Neuron, 2005, 45, 447-457.	8.1	108
134	Current Flow in Vibrissa Motor Cortex Can Phase-Lock With Exploratory Rhythmic Whisking in Rat. Journal of Neurophysiology, 2004, 92, 1700-1707.	1.8	81
135	Goal-directed whisking increases phase-locking between vibrissa movement and electrical activity in primary sensory cortex in rat. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12348-12353.	7.1	67
136	Developmental regulation of active and passive membrane properties in rat vibrissa motoneurones. Journal of Physiology, 2004, 556, 203-219.	2.9	25
137	Cutting Tissue With Ultrashort Pulsed Laser Light. Optics and Photonics News, 2004, 15, 24.	0.5	6
138	Frisking the Whiskers. Neuron, 2004, 41, 181-184.	8.1	56
139	All-Optical Histology Using Ultrashort Laser Pulses. Neuron, 2003, 39, 27-41.	8.1	204
140	Closed-loop Neuronal Computations: Focus on Vibrissa Somatosensation in Rat. Cerebral Cortex, 2003, 13, 53-62.	2.9	109
141	Unilateral vibrissa contact: changes in amplitude but not timing of rhythmic whisking. Somatosensory & Motor Research, 2003, 20, 163-169.	0.9	63
142	Rhythmic Whisking by Rat: Retraction as Well as Protraction of the Vibrissae Is Under Active Muscular Control. Journal of Neurophysiology, 2003, 89, 104-117.	1.8	347
143	Reversing cerebellar long-term depression. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15989-15993.	7.1	144
144	Vibrissa Movement Elicited by Rhythmic Electrical Microstimulation to Motor Cortex in the Aroused Rat Mimics Exploratory Whisking. Journal of Neurophysiology, 2003, 90, 2950-2963.	1.8	75

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145	Imaging Reveals Synaptic Targets of a Swim-Terminating Neuron in the Leech CNS. Journal of Neuroscience, 2003, 23, 11402-11410.	3.6	45
146	Spectral mixing of rhythmic neuronal signals in sensory cortex. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 15176-15181.	7.1	45
147	Adaptive Filtering of Vibrissa Input in Motor Cortex of Rat. Neuron, 2002, 34, 1021-1034.	8.1	119
148	Cortical blood flow through individual capillaries in rat vibrissa S1 cortex: stimulus-induced changes in flow are comparable to the underlying fluctuations in flow. International Congress Series, 2002, 1235, 115-122.	0.2	10
149	Coherent Electrical Activity Between Vibrissa Sensory Areas of Cerebellum and Neocortex Is Enhanced During Free Whisking. Journal of Neurophysiology, 2002, 87, 2137-2148.	1.8	117
150	Cortical imaging through the intact mouse skull using two-photon excitation laser scanning microscopy. Microscopy Research and Technique, 2002, 56, 304-305.	2.2	51
151	Traveling Electrical Waves in Cortex. Neuron, 2001, 29, 33-44.	8.1	410
152	Chattering and Differential Signal Processing in Identified Motion-Sensitive Neurons of Parallel Visual Pathways in the Chick Tectum. Journal of Neuroscience, 2001, 21, 6440-6446.	3.6	60
153	Distributed and Partially Separate Pools of Neurons Are Correlated with Two Different Components of the Gill-Withdrawal Reflex inAplysia. Journal of Neuroscience, 2000, 20, 8485-8492.	3.6	25
154	Dendritic Ca2+-Activated K+Conductances Regulate Electrical Signal Propagation in an Invertebrate Neuron. Journal of Neuroscience, 1999, 19, 8319-8326.	3.6	20
155	Supralinear Summation of Synaptic Inputs by an Invertebrate Neuron: Dendritic Gain Is Mediated by an â€œInward Rectifierâ€•K+ Current. Journal of Neuroscience, 1999, 19, 5875-5888.	3.6	56
156	Ultra-miniature headstage with 6-channel drive and vacuum-assisted micro-wire implantation for chronic recording from the neocortex. Journal of Neuroscience Methods, 1999, 90, 37-46.	2.5	46
157	Invited Review Anatomical loops and their electrical dynamics in relation to whisking by rat. Somatosensory & Motor Research, 1999, 16, 69-88.	0.9	187
158	Identification of Neural Circuits by Imaging Coherent Electrical Activity with FRET-Based Dyes. Neuron, 1999, 23, 449-459.	8.1	86
159	Voltage-sensitive dyes for monitoring multineuronal activity in the intact central nervous system. The Histochemical Journal, 1998, 30, 169-187.	0.6	58
160	Central Versus Peripheral Determinants of Patterned Spike Activity in Rat Vibrissa Cortex During Whisking. Journal of Neurophysiology, 1997, 78, 1144-1149.	1.8	215
161	In vivo dendritic calcium dynamics in neocortical pyramidal neurons. Nature, 1997, 385, 161-165.	27.8	795
162	Erratum to `Automatic sorting of multiple unit neuronal signals in the presence of anisotropic and non-Gaussian variability'. Journal of Neuroscience Methods, 1997, 71, 233.	2.5	1

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163	Distributed representation of vibrissa movement in the upper layers of somatosensory cortex revealed with voltage-sensitive dyes. Journal of Comparative Neurology, 1996, 375, 89-108.	1.6	213
164	Automatic sorting of multiple unit neuronal signals in the presence of anisotropic and non-Gaussian variability. Journal of Neuroscience Methods, 1996, 69, 175-188.	2.5	319
165	Probing Neuropeptide Volume Transmission In Vivo by Simultaneous Nearâ€Infrared Light Triggered Release and Optical Sensing. Angewandte Chemie, 0, , .	2.0	1