Okihide Hikosaka

List of Publications by Year
in descending order

133 papers	24,311 citations	8755 77 h-index	14012 133 g-index
141 all docs	141 docs citations	141 times ranked	17854 citing authors

#	Article	IF	Citations
1	Lateral Habenula Responses During Eye Contact in a Reward Conditioning Task. Frontiers in Behavioral Neuroscience, 2022, 16, 815461.	1.0	2
2	Environment-based object values learned by local network in the striatum tail. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	5
3	Common coding of expected value and value uncertainty memories in the prefrontal cortex and basal ganglia output. Science Advances, 2021, 7, .	4.7	17
4	Visualization of iron-rich subcortical structures in non-human primates in vivo by quantitative susceptibility mapping at 3T MRI. NeuroImage, 2021, 241, 118429.	2.1	7
5	An Open Resource for Non-human Primate Optogenetics. Neuron, 2020, 108, 1075-1090.e6.	3.8	79
6	Primate Amygdalo-Nigral Pathway for Boosting Oculomotor Action in Motivating Situations. IScience, 2020, 23, 101194.	1.9	20
7	Long-Term Value Memory in the Primate Posterior Thalamus for Fast Automatic Action. Current Biology, 2020, 30, 2901-2911.e3.	1.8	7
8	Brain Networks Sensitive to Object Novelty, Value, and Their Combination. Cerebral Cortex Communications, 2020, 1, tgaa034.	0.7	14
9	Optogenetic manipulation of a value-coding pathway from the primate caudate tail facilitates saccadic gaze shift. Nature Communications, 2020, 11, 1876.	5.8	27
10	The caudal part of putamen represents the historical object value information. Journal of Neuroscience, 2019, 39, 2534-18.	1.7	25
11	Neuronal connections of direct and indirect pathways for stable value memory in caudal basal ganglia. European Journal of Neuroscience, 2019, 49, 712-725.	1.2	28
12	Indirect pathway from caudate tail mediates rejection of bad objects in periphery. Science Advances, 2019, 5, eaaw9297.	4.7	17
13	Multiple neuronal circuits for variable objectâ€"action choices based on short- and long-term memories. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26313-26320.	3.3	19
14	Medial thalamus in the territory of oculomotor basal ganglia represents stable object value. European Journal of Neuroscience, 2019, 49, 672-686.	1.2	7
15	Direct and indirect pathways for choosing objects and actions. European Journal of Neuroscience, 2019, 49, 637-645.	1.2	42
16	Temporalâ€"prefrontal cortical network for discrimination of valuable objects in long-term memory. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E2135-E2144.	3.3	42
17	Parallel basal ganglia circuits for decision making. Journal of Neural Transmission, 2018, 125, 515-529.	1.4	43
18	Amygdala activity for the modulation of goal-directed behavior in emotional contexts. PLoS Biology, 2018, 16, e2005339.	2.6	18

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19	Prefrontal Cortex Represents Long-Term Memory of Object Values for Months. Current Biology, 2018, 28, 2206-2217.e5.	1.8	32
20	Visual Neurons in the Superior Colliculus Discriminate Many Objects by Their Historical Values. Frontiers in Neuroscience, 2018, 12, 396.	1.4	18
21	Indirect Pathway of Caudal Basal Ganglia for Rejection of Valueless Visual Objects. Neuron, 2017, 94, 920-930.e3.	3.8	73
22	To Wait or Not to Waitâ€"Separate Mechanisms in the Oculomotor Circuit of Basal Ganglia. Frontiers in Neuroanatomy, 2017, 11, 35.	0.9	15
23	Flexible and Stable Value Coding Areas in Caudate Head and Tail Receive Anatomically Distinct Cortical and Subcortical Inputs. Frontiers in Neuroanatomy, 2017, 11, 106.	0.9	50
24	Object-finding skill created by repeated reward experience. Journal of Vision, 2016, 16, 17.	0.1	22
25	Ecological Origins of Object Salience: Reward, Uncertainty, Aversiveness, and Novelty. Frontiers in Neuroscience, 2016, 10, 378.	1.4	58
26	Functional territories in primate substantia nigra pars reticulata separately signaling stable and flexible values. Journal of Neurophysiology, 2015, 113, 1681-1696.	0.9	52
27	Parallel basal ganglia circuits for voluntary and automatic behaviour to reach rewards. Brain, 2015, 138, 1776-1800.	3.7	133
28	Neurons in the Primate Medial Basal Forebrain Signal Combined Information about Reward Uncertainty, Value, and Punishment Anticipation. Journal of Neuroscience, 2015, 35, 7443-7459.	1.7	47
29	Dopamine Neurons Encoding Long-Term Memory of Object Value for Habitual Behavior. Cell, 2015, 163, 1165-1175.	13.5	139
30	Separate groups of dopamine neurons innervate caudate head and tail encoding flexible and stable value memories. Frontiers in Neuroanatomy, 2014, 8, 120.	0.9	59
31	Attention, Reward, and Information Seeking. Journal of Neuroscience, 2014, 34, 15497-15504.	1.7	131
32	Reward processing by the lateral habenula in normal and depressive behaviors. Nature Neuroscience, 2014, 17, 1146-1152.	7.1	347
33	Basal Ganglia Circuits for Reward Valueâ€"Guided Behavior. Annual Review of Neuroscience, 2014, 37, 289-306.	5.0	195
34	Distinct Basal Ganglia Circuits Controlling Behaviors Guided by Flexible and Stable Values. Neuron, 2013, 79, 1001-1010.	3.8	174
35	Why skill matters. Trends in Cognitive Sciences, 2013, 17, 434-441.	4.0	71
36	pyElectrode: An open-source tool using structural MRI for electrode positioning and neuron mapping. Journal of Neuroscience Methods, 2013, 213, 123-131.	1.3	21

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37	Selective and graded coding of reward uncertainty by neurons in the primate anterodorsal septal region. Nature Neuroscience, 2013, 16, 756-762.	7.1	69
38	Reward Value-Contingent Changes of Visual Responses in the Primate Caudate Tail Associated with a Visuomotor Skill. Journal of Neuroscience, 2013, 33, 11227-11238.	1.7	108
39	Diverse sources of reward value signals in the basal ganglia nuclei transmitted to the lateral habenula in the monkey. Frontiers in Human Neuroscience, 2013, 7, 778.	1.0	53
40	Robust Representation of Stable Object Values in the Oculomotor Basal Ganglia. Journal of Neuroscience, 2012, 32, 16917-16932.	1.7	97
41	Regionally Distinct Processing of Rewards and Punishments by the Primate Ventromedial Prefrontal Cortex. Journal of Neuroscience, 2012, 32, 10318-10330.	1.7	103
42	Learning to represent reward structure: A key to adapting to complex environments. Neuroscience Research, 2012, 74, 177-183.	1.0	23
43	The Primate Ventral Pallidum Encodes Expected Reward Value and Regulates Motor Action. Neuron, 2012, 76, 826-837.	3.8	152
44	What and Where Information in the Caudate Tail Guides Saccades to Visual Objects. Journal of Neuroscience, 2012, 32, 11005-11016.	1.7	113
45	Lateral habenula neurons signal errors in the prediction of reward information. Nature Neuroscience, 2011, 14, 1209-1216.	7.1	224
46	Dopamine-Mediated Learning and Switching in Cortico-Striatal Circuit Explain Behavioral Changes in Reinforcement Learning. Frontiers in Behavioral Neuroscience, 2011, 5, 15.	1.0	49
47	Corticoâ€basal ganglia mechanisms for overcoming innate, habitual and motivational behaviors. European Journal of Neuroscience, 2011, 33, 2058-2069.	1.2	60
48	Initiation and inhibitory control of saccades with the progression of Parkinson's disease â€“ Changes in three major drives converging on the superior colliculus. Neuropsychologia, 2011, 49, 1794-1806.	0.7	113
49	Negative Reward Signals from the Lateral Habenula to Dopamine Neurons Are Mediated by Rostromedial Tegmental Nucleus in Primates. Journal of Neuroscience, 2011, 31, 11457-11471.	1.7	323
50	Electrical Stimulation of the Primate Lateral Habenula Suppresses Saccadic Eye Movement through a Learning Mechanism. PLoS ONE, 2011, 6, e26701.	1.1	22
51	The habenula: from stress evasion to value-based decision-making. Nature Reviews Neuroscience, 2010, 11, 503-513.	4.9	786
52	A Pallidus-Habenula-Dopamine Pathway Signals Inferred Stimulus Values. Journal of Neurophysiology, 2010, 104, 1068-1076.	0.9	153
53	Distinct Tonic and Phasic Anticipatory Activity in Lateral Habenula and Dopamine Neurons. Neuron, 2010, 67, 144-155.	3.8	131
54	Dopamine in Motivational Control: Rewarding, Aversive, and Alerting. Neuron, 2010, 68, 815-834.	3.8	2,017

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55	Switching from automatic to controlled behavior: cortico-basal ganglia mechanisms. Trends in Cognitive Sciences, 2010, 14, 154-161.	4.0	310
56	Coding of Task Reward Value in the Dorsal Raphe Nucleus. Journal of Neuroscience, 2010, 30, 6262-6272.	1.7	153
57	Two types of dopamine neuron distinctly convey positive and negative motivational signals. Nature, 2009, 459, 837-841.	13.7	1,389
58	Representation of negative motivational value in the primate lateral habenula. Nature Neuroscience, 2009, 12, 77-84.	7.1	460
59	Midbrain Dopamine Neurons Signal Preference for Advance Information about Upcoming Rewards. Neuron, 2009, 63, 119-126.	3.8	406
60	New insights on the subcortical representation of reward. Current Opinion in Neurobiology, 2008, 18, 203-208.	2.0	125
61	Habenula: Crossroad between the Basal Ganglia and the Limbic System. Journal of Neuroscience, 2008, 28, 11825-11829.	1.7	374
62	The Globus Pallidus Sends Reward-Related Signals to the Lateral Habenula. Neuron, 2008, 60, 720-729.	3.8	269
63	Reward-Dependent Modulation of Neuronal Activity in the Primate Dorsal Raphe Nucleus. Journal of Neuroscience, 2008, 28, 5331-5343.	1.7	209
64	Role for Subthalamic Nucleus Neurons in Switching from Automatic to Controlled Eye Movement. Journal of Neuroscience, 2008, 28, 7209-7218.	1.7	258
65	Combining Modalities with Different Latencies for Optimal Motor Control. Journal of Cognitive Neuroscience, 2008, 20, 1966-1979.	1.1	4
66	Brain mechanisms for switching from automatic to controlled eye movements. Progress in Brain Research, 2008, 171, 375-382.	0.9	21
67	Negative motivational control of saccadic eye movement by the lateral habenula. Progress in Brain Research, 2008, 171, 399-402.	0.9	26
68	A Neural Correlate of Motivational Conflict in the Superior Colliculus of the Macaque. Journal of Neurophysiology, 2008, 100, 1332-1342.	0.9	26
69	GABAergic output of the basal ganglia. Progress in Brain Research, 2007, 160, 209-226.	0.9	139
70	The Role of the Dorsal Striatum in Reward and Decision-Making: Figure 1.. Journal of Neuroscience, 2007, 27, 8161-8165.	1.7	1,133
71	Temporal Development of Asymmetric Reward-Induced Bias in Macaques. Journal of Neurophysiology, 2007, 97, 57-61.	0.9	19
72	Switching from automatic to controlled action by monkey medial frontal cortex. Nature Neuroscience, 2007, 10, 240-248.	7.1	413

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73	Lateral habenula as a source of negative reward signals in dopamine neurons. Nature, 2007, 447, 1111-1115.	13.7	1,056
74	Basal Ganglia Mechanisms of Reward-Oriented Eye Movement. Annals of the New York Academy of Sciences, 2007, 1104, 229-249.	1.8	137
75	Functional differences between macaque prefrontal cortex and caudate nucleus during eye movements with and without reward. Experimental Brain Research, 2007, 176, 341-355.	0.7	63
76	Influences of Rewarding and Aversive Outcomes on Activity in Macaque Lateral Prefrontal Cortex. Neuron, 2006, 51, 861-870.	3.8	97
77	Extended LATER model can account for trial-by-trial variability of both pre- and post-processes. Neural Networks, 2006, 19, 1027-1046.	3.3	42
78	Effects of explicit knowledge of workspace rotation in visuomotor sequence learning. Experimental Brain Research, 2006, 174, 673-678.	0.7	15
79	Basal Ganglia Orient Eyes to Reward. Journal of Neurophysiology, 2006, 95, 567-584.	0.9	350
80	Facilitation of Saccadic Eye Movements by Postsaccadic Electrical Stimulation in the Primate Caudate. Journal of Neuroscience, 2006, 26, 12885-12895.	1.7	46
81	Comparison of Reward Modulation in the Frontal Eye Field and Caudate of the Macaque. Journal of Neuroscience, 2006, 26, 6695-6703.	1.7	118
82	Role of Dopamine in the Primate Caudate Nucleus in Reward Modulation of Saccades. Journal of Neuroscience, 2006, 26, 5360-5369.	1.7	148
83	Immediate Changes in Anticipatory Activity of Caudate Neurons Associated With Reversal of Position-Reward Contingency. Journal of Neurophysiology, 2005, 94, 1879-1887.	0.9	50
84	A Possible Role of Midbrain Dopamine Neurons in Short- and Long-Term Adaptation of Saccades to Position-Reward Mapping. Journal of Neurophysiology, 2004, 92, 2520-2529.	0.9	70
85	Emergence of rhythm during motor learning. Trends in Cognitive Sciences, 2004, 8, 547-553.	4.0	108
86	Dopamine Neurons Can Represent Context-Dependent Prediction Error. Neuron, 2004, 41, 269-280.	3.8	280
87	Reward-Predicting Activity of Dopamine and Caudate Neuronsâ€"A Possible Mechanism of Motivational Control of Saccadic Eye Movement. Journal of Neurophysiology, 2004, 91, 1013-1024.	0.9	173
88	Chunking during human visuomotor sequence learning. Experimental Brain Research, 2003, 152, 229-242.	0.7	279
89	Abnormalities of voluntary saccades in Gilles de la Tourette's syndrome: pathophysiological consideration. Brain and Development, 2003, 25, S48-S54.	0.6	29
90	Reward-Dependent Gain and Bias of Visual Responses in Primate Superior Colliculus. Neuron, 2003, 39, 693-700.	3.8	207

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91	Neural Correlates of Rewarded and Unrewarded Eye Movements in the Primate Caudate Nucleus. Journal of Neuroscience, 2003, 23, 10052-10057.	1.7	96
92	Correlation of Primate Caudate Neural Activity and Saccade Parameters in Reward-Oriented Behavior. Journal of Neurophysiology, 2003, 89, 1774-1783.	0.9	78
93	Self-Organization in the Basal Ganglia with Modulation of Reinforcement Signals. Neural Computation, 2002, 14, 819-844.	1.3	20
94	Feature-Based Anticipation of Cues that Predict Reward in Monkey Caudate Nucleus. Neuron, 2002, 33, 463-473.	3.8	118
95	A Neural Correlate of Oculomotor Sequences in Supplementary Eye Field. Neuron, 2002, 34, 317-325.	3.8	84
96	Influence of Reward Expectation on Visuospatial Processing in Macaque Lateral Prefrontal Cortex. Journal of Neurophysiology, 2002, 87, 1488-1498.	0.9	210
97	Reward-Dependent Spatial Selectivity of Anticipatory Activity in Monkey Caudate Neurons. Journal of Neurophysiology, 2002, 87, 508-515.	0.9	116
98	Role of Primate Substantia Nigra Pars Reticulata in Reward-Oriented Saccadic Eye Movement. Journal of Neuroscience, 2002, 22, 2363-2373.	1.7	169
99	Visual and Anticipatory Bias in Three Cortical Eye Fields of the Monkey during an Adaptive Decision-Making Task. Journal of Neuroscience, 2002, 22, 5081-5090.	1.7	191
100	Central mechanisms of motor skill learning. Current Opinion in Neurobiology, 2002, 12, 217-222.	2.0	815
101	Modulation of saccadic eye movements by predicted reward outcome. Experimental Brain Research, 2002, 142, 284-291.	0.7	267
102	Differential activation of monkey striatal neurons in the early and late stages of procedural learning. Experimental Brain Research, 2002, 146, 122-126.	0.7	215
103	A New Approach to the Functional Systems of theâ€ƒBrain. Epilepsia, 2002, 43, 9-15.	2.6	271
104	A neural correlate of response bias in monkey caudate nucleus. Nature, 2002, 418, 413-417.	13.7	384
105	Responses to Task-Irrelevant Visual Features by Primate Prefrontal Neurons. Journal of Neurophysiology, 2001, 86, 2001-2010.	0.9	56
106	A Code for Behavioral Inhibition on the Basis of Color, But Not Motion, in Ventrolateral Prefrontal Cortex of Macaque Monkey. Journal of Neuroscience, 2001, 21, 4801-4808.	1.7	97
107	Role of Tonically Active Neurons in Primate Caudate in Reward-Oriented Saccadic Eye Movement. Journal of Neuroscience, 2001, 21, 7804-7814.	1.7	103
108	Parallel Cortico-Basal Ganglia Mechanisms for Acquisition and Execution of Visuomotor Sequencesâ€"A Computational Approach. Journal of Cognitive Neuroscience, 2001, 13, 626-647.	1.1	174

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109	What and When: Parallel and Convergent Processing in Motor Control. Journal of Neuroscience, 2000, 20, 2691-2700.	1.7	126
110	Characteristics of sequential movements during early learning period in monkeys. Experimental Brain Research, 2000, 131, 293-304.	0.7	74
111	Role of the Basal Ganglia in the Control of Purposive Saccadic Eye Movements. Physiological Reviews, 2000, 80, 953-978.	13.1	1,061
112	Effects of Local Inactivation of Monkey Medial Frontal Cortex in Learning of Sequential Procedures. Journal of Neurophysiology, 1999, 82, 1063-1068.	0.9	91
113	Presupplementary Motor Area Activation during Sequence Learning Reflects Visuo-Motor Association. Journal of Neuroscience, 1999, 19, RC1-RC1.	1.7	142
114	Parallel neural networks for learning sequential procedures. Trends in Neurosciences, 1999, 22, 464-471.	4.2	702
115	Neural Representation of a Rhythm Depends on Its Interval Ratio. Journal of Neuroscience, 1999, 19, 10074-10081.	1.7	176
116	Expectation of reward modulates cognitive signals in the basal ganglia. Nature Neuroscience, 1998, 1, 411-416.	7.1	567
117	Presaccadic omnidirectional burst activity in the basal interstitial nucleus in the monkey cerebellum. Experimental Brain Research, 1998, 121, 442-450.	0.7	16
118	Transition of Brain Activation from Frontal to Parietal Areas in Visuomotor Sequence Learning. Journal of Neuroscience, 1998, 18, 1827-1840.	1.7	424
119	Role of Monkey Cerebellar Nuclei in Skill for Sequential Movement. Journal of Neurophysiology, 1998, 79, 2245-2254.	0.9	86
120	Visualization of the Information Flow Through Human Oculomotor Cortical Regions by Transcranial Magnetic Stimulation. Journal of Neurophysiology, 1998, 80, 936-946.	0.9	86
121	Neuronal Activity in Medial Frontal Cortex During Learning of Sequential Procedures. Journal of Neurophysiology, 1998, 80, 2671-2687.	0.9	239
122	Minimal synaptic delay in the saccadic output pathway of the superior colliculus studied in awake monkey. Experimental Brain Research, 1996, 112, 187-96.	0.7	59
123	Visual hemineglect induced by unilateral striatal dopamine deficiency in monkeys. NeuroReport, 1995, 6, 1257-1260.	0.6	62
124	Role of basal ganglia in voluntary movements. JuntendoÌ,, Igaku, 1995, 41, 186-194.	0.1	0
125	Effects of caudate nucleus stimulation on substantia nigra cell activity in monkey. Experimental Brain Research, 1993, 95, 457-72.	0.7	84
126	Rostrocaudal gradients in the neuronal receptive field complexity in the finger region of the alert monkey's postcentral gyrus. Experimental Brain Research, 1993, 92, 360-8.	0.7	184

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127	Focal visual attention produces illusory temporal order and motion sensation. Vision Research, 1993, 33, 1219-1240.	0.7	324
128	Voluntary and Stimulus-Induced Attention Detected as Motion Sensation. Perception, 1993, 22, 517-526.	0.5	165
129	Eye movements induced by microinjection of GABA agonist in the rat substantia nigra pars reticulata. Neuroscience Research, 1989, 6, 216-233.	1.0	29
130	Role of the basal ganglia in the initiation of saccadic eye movements. Progress in Brain Research, 1986, 64, 175-190.	0.9	120
131	Deficits in manipulative behaviors induced by local injections of muscimol in the first somatosensory cortex of the conscious monkey. Brain Research, 1985, 325, 375-380.	1.1	164
132	Effects on eye movements of a GABA agonist and antagonist injected into monkey superior colliculus. Brain Research, 1983, 272, 368-372.	1.1	117
133	Overlapping representation of fingers in the somatosensory cortex (area 2) of the conscious monkey. Brain Research, 1980, 197, 516-520.	1.1	90