Mark E Walton

List of Publications by Year
in descending order

49 papers	8,775 citations	185998 28 h-index	223531 46 g-index
60 all docs	60 docs citations	60 times ranked	7389 citing authors

#	Article	IF	Citations
1	Learning the value of information in an uncertain world. Nature Neuroscience, 2007, 10, 1214-1221.	7.1	1,650
2	Frontal Cortex and Reward-Guided Learning and Decision-Making. Neuron, 2011, 70, 1054-1069.	3.8	921
3	Optimal decision making and the anterior cingulate cortex. Nature Neuroscience, 2006, 9, 940-947.	7.1	802
4	Separate neural pathways process different decision costs. Nature Neuroscience, 2006, 9, 1161-1168.	7.1	521
5	Effort-Based Costâ€"Benefit Valuation and the Human Brain. Journal of Neuroscience, 2009, 29, 4531-4541.	1.7	458
6	Functional Specialization within Medial Frontal Cortex of the Anterior Cingulate for Evaluating Effort-Related Decisions. Journal of Neuroscience, 2003, 23, 6475-6479.	1.7	434
7	Interactions between decision making and performance monitoring within prefrontal cortex. Nature Neuroscience, 2004, 7, 1259-1265.	7.1	393
8	Functional organization of the medial frontal cortex. Current Opinion in Neurobiology, 2007, 17, 220-227.	2.0	368
9	Separable Learning Systems in the Macaque Brain and the Role of Orbitofrontal Cortex in Contingent Learning. Neuron, 2010, 65, 927-939.	3.8	344
10	The Role of Rat Medial Frontal Cortex in Effort-Based Decision Making. Journal of Neuroscience, 2002, 22, 10996-11003.	1.7	317
11	Frontal Cortex Subregions Play Distinct Roles in Choices between Actions and Stimuli. Journal of Neuroscience, 2008, 28, 13775-13785.	1.7	299
12	Calculating utility: preclinical evidence for costâ€"benefit analysis by mesolimbic dopamine. Psychopharmacology, 2007, 191, 483-495.	1.5	215
13	Dissociable cost and benefit encoding of future rewards by mesolimbic dopamine. Nature Neuroscience, 2010, 13, 25-27.	7.1	212
14	Action initiation shapes mesolimbic dopamine encoding of future rewards. Nature Neuroscience, 2016, 19, 34-36.	7.1	177
15	Adaptive decision making and value in the anterior cingulate cortex. NeuroImage, 2007, 36, T142-T154.	2.1	139
16	Contrasting Roles for Orbitofrontal Cortex and Amygdala in Credit Assignment and Learning in Macaques. Neuron, 2015, 87, 1106-1118.	3.8	138
17	Decision making and reward in frontal cortex: Complementary evidence from neurophysiological and neuropsychological studies.. Behavioral Neuroscience, 2011, 125, 297-317.	0.6	133
18	A neural mechanism underlying failure of optimal choice with multiple alternatives. Nature Neuroscience, 2014, 17, 463-470.	7.1	116

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19	Distinct contributions of frontal areas to emotion and social behaviour in the rat. European Journal of Neuroscience, 2007, 26, 2315-2326.	1.2	112
20	Comparing the role of the anterior cingulate cortex and 6â€hydroxydopamine nucleus accumbens lesions on operant effortâ€based decision making. European Journal of Neuroscience, 2009, 29, 1678-1691.	1.2	112
21	What Is the Relationship between Dopamine and Effort?. Trends in Neurosciences, 2019, 42, 79-91.	4.2	90
22	Calculating the Cost of Acting in Frontal Cortex. Annals of the New York Academy of Sciences, 2007, 1104, 340-356.	1.8	85
23	Giving credit where credit is due: orbitofrontal cortex and valuation in an uncertain world. Annals of the New York Academy of Sciences, 2011, 1239, 14-24.	1.8	85
24	Reward-Guided Learning with and without Causal Attribution. Neuron, 2016, 90, 177-190.	3.8	69
25	Mesolimbic Dopamine Encodes Prediction Errors in a State-Dependent Manner. Cell Reports, 2016, 15, 221-228.	2.9	62
26	Critical role for the mediodorsal thalamus in permitting rapid reward-guided updating in stochastic reward environments. ELife, 2016, 5, .	2.8	50
27	Dopamine-associated cached values are not sufficient as the basis for action selection. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 18357-18362.	3.3	42
28	Dual contributions of noradrenaline to behavioural flexibility and motivation. Psychopharmacology, 2018, 235, 2687-2702.	1.5	37
29	Probing human and monkey anterior cingulate cortex in variable environments. Cognitive, Affective and Behavioral Neuroscience, 2007, 7, 413-422.	1.0	34
30	Time-dependent assessment of stimulus-evoked regional dopamine release. Nature Communications, 2019, 10, 336.	5.8	31
31	Organization of Afferents along the Anteriorâ€"posterior and Medialâ€"lateral Axes of the Rat Orbitofrontal Cortex. Neuroscience, 2021, 460, 53-68.	1.1	31
32	Fatigue modulates dopamine availability and promotes flexible choice reversals during decision making. Scientific Reports, 2017, 7, 535.	1.6	30
33	pyPhotometry: Open source Python based hardware and software for fiber photometry data acquisition. Scientific Reports, 2019, 9, 3521.	1.6	28
34	Neuroscience of foraging. Frontiers in Neuroscience, 2014, 8, 81.	1.4	27
35	Sleep homeostasis, habits and habituation. Current Opinion in Neurobiology, 2017, 44, 202-211.	2.0	27
36	Prioritising the relevant information for learning and decision making within orbital and ventromedial prefrontal cortex. Current Opinion in Behavioral Sciences, 2015, 1, 78-85.	2.0	26

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37	Open-source, Python-based, hardware and software for controlling behavioural neuroscience experiments. ELife, 2022, 11, .	2.8	26
38	Behavioral flexibility is associated with changes in structure and function distributed across a frontal cortical network in macaques. PLoS Biology, 2020, 18, e3000605.	2.6	24
39	Distinct roles for dopamine clearance mechanisms in regulating behavioral flexibility. Molecular Psychiatry, 2021, 26, 7188-7199.	4.1	20
40	Defining an orbitofrontal compass: Functional and anatomical heterogeneity across anteriorâ€“posterior and medialâ€“lateral axes.. Behavioral Neuroscience, 2021, 135, 165-173.	0.6	16
41	Noradrenergic But Not Dopaminergic Neurons Signal Task State Changes and Predict Reengagement After a Failure. Cerebral Cortex, 2020, 30, 4979-4994.	1.6	12
42	Amphetamine disrupts haemodynamic correlates of prediction errors in nucleus accumbens and orbitofrontal cortex. Neuropsychopharmacology, 2020, 45, 793-803.	2.8	11
43	What is dopamine doing in model-based reinforcement learning?. Current Opinion in Behavioral Sciences, 2021, 38, 74-82.	2.0	11
44	Unilateral medial frontal cortex lesions cause a cognitive decisionâ€making deficit in rats. European Journal of Neuroscience, 2014, 40, 3757-3765.	1.2	9
45	Using intermediate cognitive endpoints to facilitate translational research in psychosis. Current Opinion in Behavioral Sciences, 2015, 4, 128-135.	2.0	4
46	5-HT2C receptor perturbation has bidirectional influence over instrumental vigour and restraint. Psychopharmacology, 2022, 239, 123-140.	1.5	3
47	Evaluating and revaluing outcomes in the frontal lobe (Commentary on Kennerley and Wallis). European Journal of Neuroscience, 2009, 29, 2060-2060.	1.2	0
48	Editorial: Memory Systems of the Addicted Brain: The Underestimated Role of Cognitive Biases in Addiction and Its Treatment. Frontiers in Psychiatry, 2018, 9, 30.	1.3	0
49	Nucleus accumbens D1-receptors regulate and focus transitions to reward-seeking action. Neuropsychopharmacology, 2022, 47, 1721-1731.	2.8	0