Donald A Wilson

List of Publications by Year
in descending order

125 papers	10,709 citations	41258 49 h-index	34900 98 g-index
133 all docs	133 docs citations	133 times ranked	11987 citing authors

#	Article	IF	Citations
1	Habituation revisited: An updated and revised description of the behavioral characteristics of habituation. Neurobiology of Learning and Memory, 2009, 92, 135-138.	1.0	1,167
2	ApoE-Directed Therapeutics Rapidly Clear Î²-Amyloid and Reverse Deficits in AD Mouse Models. Science, 2012, 335, 1503-1506.	6.0	913
3	Dynamics of Active Sensing and perceptual selection. Current Opinion in Neurobiology, 2010, 20, 172-176.	2.0	539
4	Pattern Separation: A Common Function for New Neurons in Hippocampus and Olfactory Bulb. Neuron, 2011, 70, 582-588.	3.8	432
5	Reversal of autophagy dysfunction in the TgCRND8 mouse model of Alzheimer's disease ameliorates amyloid pathologies and memory deficits. Brain, 2011, 134, 258-277.	3.7	394
6	Cortical Processing of Odor Objects. Neuron, 2011, 72, 506-519.	3.8	370
7	Good memories of bad events in infancy. Nature, 2000, 407, 38-39.	13.7	299
8	Olfactory Dysfunction Correlates with Amyloid-Î² Burden in an Alzheimer's Disease Mouse Model. Journal of Neuroscience, 2010, 30, 505-514.	1.7	258
9	The fundamental role of memory in olfactory perception. Trends in Neurosciences, 2003, 26, 243-247.	4.2	231
10	Habituation of Odor Responses in the Rat Anterior Piriform Cortex. Journal of Neurophysiology, 1998, 79, 1425-1440.	0.9	212
11	Dual Circuitry for Odor-Shock Conditioning during Infancy: Corticosterone Switches between Fear and Attraction via Amygdala. Journal of Neuroscience, 2006, 26, 6737-6748.	1.7	204
12	Olfactory perceptual stability and discrimination. Nature Neuroscience, 2008, 11, 1378-1380.	7.1	189
13	Bidirectional plasticity of cortical pattern recognition and behavioral sensory acuity. Nature Neuroscience, 2012, 15, 155-161.	7.1	182
14	Spatial and Temporal Distribution of Odorant-Evoked Activity in the Piriform Cortex. Journal of Neuroscience, 2007, 27, 1534-1542.	1.7	181
15	Sniffing out the contributions of the olfactory tubercle to the sense of smell: Hedonics, sensory integration, and more?. Neuroscience and Biobehavioral Reviews, 2011, 35, 655-668.	2.9	173
16	Olfactory perceptual learning: the critical role of memory in odor discrimination. Neuroscience and Biobehavioral Reviews, 2003, 27, 307-328.	2.9	168
17	Separate encoding of identity and similarity of complex familiar odors in piriform cortex. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 15206-15211.	3.3	147
18	Slow-Wave Sleep-Imposed Replay Modulates Both Strength and Precision of Memory. Journal of Neuroscience, 2014, 34, 5134-5142.	1.7	126

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19	Experience Modifies Olfactory Acuity: Acetylcholine-Dependent Learning Decreases Behavioral Generalization between Similar Odorants. Journal of Neuroscience, 2002, 22, RC201-RC201.	1.7	125
20	Rapid, Experience-Induced Enhancement in Odorant Discrimination by Anterior Piriform Cortex Neurons. Journal of Neurophysiology, 2003, 90, 65-72.	0.9	125
21	Sensory Network Dysfunction, Behavioral Impairments, and Their Reversibility in an Alzheimer's Î²-Amyloidosis Mouse Model. Journal of Neuroscience, 2011, 31, 15962-15971.	1.7	123
22	Smelling Sounds: Olfactory-Auditory Sensory Convergence in the Olfactory Tubercle. Journal of Neuroscience, 2010, 30, 3013-3021.	1.7	114
23	Olfactory Bulb Mitral-Tufted Cell Plasticity: Odorant-Specific Tuning Reflects Previous Odorant Exposure. Journal of Neuroscience, 2003, 23, 6946-6955.	1.7	106
24	Olfactory Cortical Adaptation Facilitates Detection of Odors Against Background. Journal of Neurophysiology, 2006, 95, 1888-1896.	0.9	106
25	Acetylcholine and Olfactory Perceptual Learning. Learning and Memory, 2004, 11, 28-34.	0.5	103
26	Odour Perception: An Object-Recognition Approach. Perception, 2007, 36, 1821-1833.	0.5	101
27	Neurobiology of a Simple Memory. Journal of Neurophysiology, 2008, 100, 2-7.	0.9	101
28	Coordinate Synaptic Mechanisms Contributing to Olfactory Cortical Adaptation. Journal of Neuroscience, 2004, 24, 652-660.	1.7	100
29	Comparison of Odor Receptive Field Plasticity in the Rat Olfactory Bulb and Anterior Piriform Cortex. Journal of Neurophysiology, 2000, 84, 3036-3042.	0.9	98
30	Lateral Entorhinal Modulation of Piriform Cortical Activity and Fine Odor Discrimination. Journal of Neuroscience, 2013, 33, 13449-13459.	1.7	91
31	Cortical contributions to olfaction: Plasticity and perception. Seminars in Cell and Developmental Biology, 2006, 17, 462-470.	2.3	86
32	Modified behavioral and olfactory bulb responses to maternal odors in preweanling rats. Developmental Brain Research, 1990, 53, 243-247.	2.1	81
33	Bilateral 6-OHDA lesions of the locus coeruleus impair associative olfactory learning in newborn rats. Brain Research, 1994, 643, 306-309.	1.1	80
34	The olfactory thalamus: unanswered questions about the role of the mediodorsal thalamic nucleus in olfaction. Frontiers in Neural Circuits, 2015, 9, 49.	1.4	80
35	Generalized vs. stimulus-specific learned fear differentially modifies stimulus encoding in primary sensory cortex of awake rats. Journal of Neurophysiology, 2011, 106, 3136-3144.	0.9	78
36	Odor Specificity of Habituation in the Rat Anterior Piriform Cortex. Journal of Neurophysiology, 2000, 83, 139-145.	0.9	77

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37	Distinct neural mechanisms mediate olfactory memory formation at different timescales. Learning and Memory, 2008, 15, 117-125.	0.5	77
38	Synaptic Correlates of Odor Habituation in the Rat Anterior Piriform Cortex. Journal of Neurophysiology, 1998, 80, 998-1001.	0.9	73
39	Binaral Interactions in the Rat Piriform Cortex. Journal of Neurophysiology, 1997, 78, 160-169.	0.9	64
40	Synaptic adaptation and odor-background segmentation. Neurobiology of Learning and Memory, 2007, 87, 352-360.	1.0	64
41	Neurobehavioral assessment of maternal odor in developing rat pups: implications for social buffering. Social Neuroscience, 2017, 12, 32-49.	0.7	63
42	Odor-specific habituation arises from interaction of afferent synaptic adaptation and intrinsic synaptic potentiation in olfactory cortex. Learning and Memory, 2009, 16, 452-459.	0.5	62
43	Early hyperactivity in lateral entorhinal cortex is associated with elevated levels of AÎ²PP metabolites in the Tg2576 mouse model of Alzheimer's disease. Experimental Neurology, 2015, 264, 82-91.	2.0	60
44	Olfactory memory networks: from emotional learning to social behaviors. Frontiers in Behavioral Neuroscience, 2015, 9, 36.	1.0	59
45	Paradoxical Neurobehavioral Rescue by Memories of Early-Life Abuse: The Safety Signal Value of Odors Learned during Abusive Attachment. Neuropsychopharmacology, 2015, 40, 906-914.	2.8	59
46	Cortical Odor Processing in Health and Disease. Progress in Brain Research, 2014, 208, 275-305.	0.9	58
47	Selective reduction of cerebral cortex GABA neurons in a late gestation model of fetal alcohol spectrum disorder. Alcohol, 2015, 49, 571-580.	0.8	56
48	Cortical Metabotropic Glutamate Receptors Contribute to Habituation of a Simple Odor-Evoked Behavior. Journal of Neuroscience, 2005, 25, 2513-2517.	1.7	55
49	Single-Unit Activity in Piriform Cortex during Slow-Wave State Is Shaped by Recent Odor Experience. Journal of Neuroscience, 2010, 30, 1760-1765.	1.7	54
50	Maternal Regulation of Infant Brain State. Current Biology, 2014, 24, 1664-1669.	1.8	54
51	Local and Regional Network Function in Behaviorally Relevant Cortical Circuits of Adult Mice Following Postnatal Alcohol Exposure. Alcoholism: Clinical and Experimental Research, 2011, 35, 1974-1984.	1.4	53
52	Developing a neurobehavioral animal model of poverty: Drawing cross-species connections between environments of scarcity-adversity, parenting quality, and infant outcome. Development and Psychopathology, 2019, 31, 399-418.	1.4	52
53	Pattern Separation and Completion in Olfaction. Annals of the New York Academy of Sciences, 2009, 1170, 306-312.	1.8	51
54	Behavioral and Neurobiological Convergence of Odor, Mood and Emotion: A Review. Frontiers in Behavioral Neuroscience, 2020, 14, 35.	1.0	51

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55	Odor Fear Conditioning Modifies Piriform Cortex Local Field Potentials Both during Conditioning and during Post-Conditioning Sleep. PLoS ONE, 2011, 6, e18130.	1.1	49
56	Sleep and olfactory cortical plasticity. Frontiers in Behavioral Neuroscience, 2014, 8, 134.	1.0	48
57	Thalamic olfaction: characterizing odor processing in the mediodorsal thalamus of the rat. Journal of Neurophysiology, 2014, 111, 1274-1285.	0.9	48
58	Sleep-Like States Modulate Functional Connectivity in the Rat Olfactory System. Journal of Neurophysiology, 2010, 104, 3231-3239.	0.9	47
59	Non-invasive recording from the human olfactory bulb. Nature Communications, 2020, 11, 648.	5.8	47
60	Daily Rhythms in Olfactory Discrimination Depend on Clock Genes but Not the Suprachiasmatic Nucleus. Journal of Biological Rhythms, 2011, 26, 552-560.	1.4	46
61	Long-term episodic memory decline is associated with olfactory deficits only in carriers of ApoE-Ñ”4. Neuropsychologia, 2016, 85, 1-9.	0.7	46
62	Olfactory associative conditioning in infant rats with brain stimulation as reward: II. Norepinephrine mediates a specific component of the bulb response to reward.. Behavioral Neuroscience, 1991, 105, 843-849.	0.6	44
63	Functional coupling in rat central olfactory pathways: a coherence analysis. Neuroscience Letters, 1999, 276, 17-20.	1.0	44
64	During infant maltreatment, stress targets hippocampus, but stress with mother present targets amygdala and social behavior. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 22821-22832.	3.3	44
65	Development of Odor Hedonics: Experience-Dependent Ontogeny of Circuits Supporting Maternal and Predator Odor Responses in Rats. Journal of Neuroscience, 2016, 36, 6634-6650.	1.7	42
66	Neurobiology of maternal regulation of infant fear: the role of mesolimbic dopamine and its disruption by maltreatment. Neuropsychopharmacology, 2019, 44, 1247-1257.	2.8	42
67	The Olfactory Mosaic: Bringing an Olfactory Network Together for Odor Perception. Perception, 2017, 46, 320-332.	0.5	41
68	Olfaction as a model system for the neurobiology of mammalian short-term habituation. Neurobiology of Learning and Memory, 2009, 92, 199-205.	1.0	40
69	Cholinergic modulation of olfactory pattern separation. Neuroscience Letters, 2013, 545, 50-53.	1.0	39
70	Dissociation of behavioral and neural correlates of early associative learning. Developmental Psychobiology, 1995, 28, 213-219.	0.9	38
71	Dynamic cortical lateralization during olfactory discrimination learning. Journal of Physiology, 2015, 593, 1701-1714.	1.3	38
72	Blockade of mitral/tufted cell habituation to odors by association with reward: a preliminary note. Brain Research, 1992, 594, 143-145.	1.1	35

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73	Human olfactory-auditory integration requires phase synchrony between sensory cortices. Nature Communications, 2019, 10, 1168.	5.8	34
74	Immunization targeting a minor plaque constituent clears Î²-amyloid and rescues behavioral deficits in an Alzheimer's disease mouse model. Neurobiology of Aging, 2013, 34, 137-145.	1.5	33
75	Long-Lasting Neural Circuit Dysfunction Following Developmental Ethanol Exposure. Brain Sciences, 2013, 3, 704-727.	1.1	32
76	Optogenetic Stimulation of Lateral Amygdala Input to Posterior Piriform Cortex Modulates Single-Unit and Ensemble Odor Processing. Frontiers in Neural Circuits, 2015, 9, 81.	1.4	32
77	Parallel Odor Processing by Two Anatomically Distinct Olfactory Bulb Target Structures. PLoS ONE, 2012, 7, e34926.	1.1	31
78	Neural Representation of Odor-Guided Behavior in the Rat Olfactory Thalamus. Journal of Neuroscience, 2016, 36, 5946-5960.	1.7	31
79	Apolipoprotein E4 causes early olfactory network abnormalities and short-term olfactory memory impairments. Neuroscience, 2017, 343, 364-371.	1.1	31
80	The role of metabotropic glutamate receptors and cortical adaptation in habituation of odor-guided behavior. Learning and Memory, 2005, 12, 601-605.	0.5	30
81	Trans-neuronal regulation of cortical apoptosis in the adult rat olfactory system. Brain Research, 2003, 984, 182-188.	1.1	29
82	Alterations of the volatile metabolome in mouse models of Alzheimerâ€™s disease. Scientific Reports, 2016, 6, 19495.	1.6	29
83	Differential Modifications of Synaptic Weights During Odor Rule Learning: Dynamics of Interaction Between the Piriform Cortex with Lower and Higher Brain Areas. Cerebral Cortex, 2015, 25, 180-191.	1.6	28
84	Adverse caregiving in infancy blunts neural processing of the mother. Nature Communications, 2020, 11, 1119.	5.8	28
85	NMDA receptors mediate expression of one form of functional plasticity induced by olfactory deprivation. Brain Research, 1995, 677, 238-242.	1.1	27
86	Rapidly acquired multisensory association in the olfactory cortex. Brain and Behavior, 2015, 5, e00390.	1.0	26
87	Maternal Regulation of Pupsâ€™ Cortical Activity: Role of Serotonergic Signaling. ENeuro, 2018, 5, ENEURO.0093-18.2018.	0.9	26
88	Bidirectional control of infant rat social behavior via dopaminergic innervation of the basolateral amygdala. Neuron, 2021, 109, 4018-4035.e7.	3.8	26
89	Early Life Trauma Has Lifelong Consequences for Sleep And Behavior. Scientific Reports, 2019, 9, 16701.	1.6	24
90	Neonatal representation of odour objects: distinct memories of the whole and its parts. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20133319.	1.2	23

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91	Neonatal Ethanol Disturbs the Normal Maturation of Parvalbumin Interneurons Surrounded by Subsets of Perineuronal Nets in the Cerebral Cortex: Partial Reversal by Lithium. Cerebral Cortex, 2019, 29, 1383-1397.	1.6	23
92	Chronic anti-murine AÎ² immunization preserves odor guided behaviors in an Alzheimer's Î²-amyloidosis model. Behavioural Brain Research, 2013, 237, 96-102.	1.2	18
93	Stimulationâ€induced transient changes in neuronal activity, blood flow and Nâ€acetylaspartate content in rat prefrontal cortex: a chemogenetic fMRSâ€BOLD study. NMR in Biomedicine, 2016, 29, 1678-1687.	1.6	18
94	The human olfactory bulb processes odor valence representation and cues motor avoidance behavior. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	18
95	Auditory Stimulation Dishabituates Olfactory Responses via Noradrenergic Cortical Modulation. Neural Plasticity, 2009, 2009, 1-6.	1.0	17
96	Brain processing of a configural vs elemental odor mixture in the newborn rabbit. Brain Structure and Function, 2016, 221, 2527-2539.	1.2	17
97	Task-Correlated Cortical Asymmetry and Intra- and Inter-Hemispheric Separation. Scientific Reports, 2017, 7, 14602.	1.6	17
98	The Value of Homework: Exposure to Odors in the Home Cage Enhances Odor-Discrimination Learning in Mice. Chemical Senses, 2019, 44, 135-143.	1.1	17
99	Early locus coeruleus lesions increase the density of Î²-adrenergic receptors in the main olfactory bulb of rats. International Journal of Developmental Neuroscience, 1996, 14, 913-919.	0.7	16
100	Spared Piriform Cortical Single-Unit Odor Processing and Odor Discrimination in the Tg2576 Mouse Model of Alzheimer's Disease. PLoS ONE, 2014, 9, e106431.	1.1	16
101	Human Apolipoprotein E Genotype Differentially Affects Olfactory Behavior and Sensory Physiology in Mice. Neuroscience, 2018, 380, 103-110.	1.1	15
102	A specific olfactory cortico-thalamic pathway contributing to sampling performance during odor reversal learning. Brain Structure and Function, 2019, 224, 961-971.	1.2	15
103	Interaction Between Odor Identification Deficit and APOE4 Predicts 6-Year Cognitive Decline in Elderly Individuals. Behavior Genetics, 2020, 50, 3-13.	1.4	15
104	Cortical processing of configurally perceived odor mixtures. Brain Research, 2020, 1729, 146617.	1.1	14
105	Odor identity can be extracted from the reciprocal connectivity between olfactory bulb and piriform cortex in humans. NeuroImage, 2021, 237, 118130.	2.1	14
106	Effects of neonatal ethanol on cerebral cortex development through adolescence. Brain Structure and Function, 2019, 224, 1871-1884.	1.2	13
107	Human Olfaction: It Takes Two Villages. Current Biology, 2018, 28, R108-R110.	1.8	11
108	Basolateral amygdala to posterior piriform cortex connectivity ensures precision in learned odor threat. Scientific Reports, 2021, 11, 21746.	1.6	11

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109	Differential memory persistence of odor mixture and components in newborn rabbits: competition between the whole and its parts. Frontiers in Behavioral Neuroscience, 2014, 8, 211.	1.0	10
110	Neonatal ethanol causes profound reduction of cholinergic cell number in the basal forebrain of adult animals. Alcohol, 2021, 97, 1-11.	0.8	9
111	Odor Identification in Rats: Behavioral and Electrophysiological Evidence of Learned Olfactory-Auditory Associations. ENeuro, 2019, 6, ENEURO.0102-19.2019.	0.9	9
112	Interaction between delta opioid receptors and benzodiazepines in CO2-induced respiratory responses in mice. Brain Research, 2011, 1396, 54-59.	1.1	8
113	Sniffing out a function for prion proteins. Nature Neuroscience, 2009, 12, 7-8.	7.1	5
114	Ontogeny of cortical synaptic depression underlying olfactory sensory gating in the rat. Developmental Brain Research, 2005, 158, 107-110.	2.1	4
115	Neurobehavioral consequences of cortical adaptation disruption during ontogeny. Neuroscience Letters, 2008, 445, 47-52.	1.0	4
116	Sleep Impact on Perception, Memory, and Emotion in Adults and the Effects of Early-Life Experience. Handbook of Behavioral Neuroscience, 2019, , 593-610.	0.7	4
117	Post-exposure environment modulates long-term developmental ethanol effects on behavior, neuroanatomy, and cortical oscillations. Brain Research, 2020, 1748, 147128.	1.1	4
118	Good scents: A short road from olfaction toÂsatisfaction. Current Biology, 2021, 31, R374-R376.	1.8	4
119	Odor Perception is Dynamic: Consequences for Interpretation of Odor Maps. Chemical Senses, 2005, 30, i105-i106.	1.1	3
120	Biological constraints on configural odour mixture perception. Journal of Experimental Biology, 2022, 225, .	0.8	3
121	A hunger for odour: Leptin modulation of olfaction. Acta Physiologica, 2019, 227, e13363.	1.8	2
122	Aversive Olfactory Conditioning. , 2017, , 103-104.		2
123	Preface. Progress in Brain Research, 2014, 208, ix-x.	0.9	1
124	Sleep and Odor Memory Consolidation in Non-human Animal Models. Studies in Neuroscience, Psychology and Behavioral Economics, 2017, , 87-103.	0.1	1
125	Function of the Olfactory Cortex. , 2020, , 661-674.		0