

# Alan Carleton

## List of Publications by Year in descending order

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Version: 2024-02-01

57  
papers

5,273  
citations

159585

30  
h-index

175258

52  
g-index

66  
all docs

66  
docs citations

66  
times ranked

5591  
citing authors

#	ARTICLE	IF	CITATIONS
1	Becoming a new neuron in the adult olfactory bulb. <i>Nature Neuroscience</i> , 2003, 6, 507-518.	14.8	732
2	Sonic hedgehog controls stem cell behavior in the postnatal and adult brain. <i>Development (Cambridge)</i> , 2005, 132, 335-344.	2.5	539
3	Maintaining Accuracy at the Expense of Speed Stimulus Similarity Defines Odor Discrimination Time in Mice. <i>Neuron</i> , 2004, 44, 865-876.	8.1	260
4	Maintaining Accuracy at the Expense of Speed. <i>Neuron</i> , 2004, 44, 865-876.	8.1	251
5	Dynamic Ensemble Odor Coding in the Mammalian Olfactory Bulb: Sensory Information at Different Timescales. <i>Neuron</i> , 2008, 57, 586-598.	8.1	246
6	Interplay between Local GABAergic Interneurons and Relay Neurons Generates $\hat{A}$ Oscillations in the Rat Olfactory Bulb. <i>Journal of Neuroscience</i> , 2004, 24, 4382-4392.	3.6	243
7	Sensory-evoked LTP driven by dendritic plateau potentials in vivo. <i>Nature</i> , 2014, 515, 116-119.	27.8	239
8	Long-term but not short-term plasticity at mossy fiber synapses is impaired in neural cell adhesion molecule-deficient mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 13242-13247.	7.1	204
9	Differential Spatial Representation of Taste Modalities in the Rat Gustatory Cortex. <i>Journal of Neuroscience</i> , 2007, 27, 1396-1404.	3.6	199
10	SARS-CoV-2 Receptors and Entry Genes Are Expressed in the Human Olfactory Neuroepithelium and Brain. <i>IScience</i> , 2020, 23, 101839.	4.1	173
11	Neuronal pattern separation in the olfactory bulb improves odor discrimination learning. <i>Nature Neuroscience</i> , 2015, 18, 1474-1482.	14.8	165
12	Combined Voltage and Calcium Epifluorescence Imaging In Vitro and In Vivo Reveals Subthreshold and Suprathreshold Dynamics of Mouse Barrel Cortex. <i>Journal of Neurophysiology</i> , 2007, 97, 3751-3762.	1.8	162
13	Coding in the mammalian gustatory system. <i>Trends in Neurosciences</i> , 2010, 33, 326-334.	8.6	162
14	Multiple and Opposing Roles of Cholinergic Transmission in the Main Olfactory Bulb. <i>Journal of Neuroscience</i> , 1999, 19, 9180-9191.	3.6	144
15	Large-scale transcriptional profiling of chemosensory neurons identifies receptor-ligand pairs in vivo. <i>Nature Neuroscience</i> , 2015, 18, 1455-1463.	14.8	119
16	Internal body state influences topographical plasticity of sensory representations in the rat gustatory cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 4010-4015.	7.1	97
17	bicoid-Independent Formation of Thoracic Segments in <i>Drosophila</i> . <i>Science</i> , 2000, 287, 2476-2479.	12.6	96
18	The Vomeronasal System Mediates Sick Conspecific Avoidance. <i>Current Biology</i> , 2015, 25, 251-255.	3.9	96

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19	Odor representations in the olfactory bulb evolve after the first breath and persist as an odor afterimage. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E3340-9.	7.1	84
20	Dense representation of natural odorants in the mouse olfactory bulb. <i>Nature Neuroscience</i> , 2012, 15, 537-539.	14.8	83
21	A dendrodendritic reciprocal synapse provides a recurrent excitatory connection in the olfactory bulb. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 6441-6446.	7.1	70
22	Context- and Output Layer-Dependent Long-Term Ensemble Plasticity in a Sensory Circuit. <i>Neuron</i> , 2017, 93, 1198-1212.e5.	8.1	70
23	Subpallial origin of a population of projecting pioneer neurons during corticogenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 12468-12473.	7.1	67
24	Encoding Odorant Identity by Spiking Packets of Rate-Invariant Neurons in Awake Mice. <i>PLoS ONE</i> , 2012, 7, e30155.	2.5	58
25	Long term functional plasticity of sensory inputs mediated by olfactory learning. <i>ELife</i> , 2014, 3, e02109.	6.0	53
26	Restoring wild-type-like CA1 network dynamics and behavior during adulthood in a mouse model of schizophrenia. <i>Nature Neuroscience</i> , 2018, 21, 1412-1420.	14.8	53
27	Morphogenetic action through flux-limited spreading. <i>Physics of Life Reviews</i> , 2013, 10, 457-475.	2.8	51
28	Dose-dependent, prion protein (PrP)-mediated facilitation of excitatory synaptic transmission in the mouse hippocampus. <i>Pflügers Archiv European Journal of Physiology</i> , 2001, 442, 223-229.	2.8	43
29	Similar Odor Discrimination Behavior in Head-Restrained and Freely Moving Mice. <i>PLoS ONE</i> , 2012, 7, e51789.	2.5	41
30	Fast Ray features for learning irregular shapes. , 2009, , .		40
31	A population of glomerular glutamatergic neurons controls sensory information transfer in the mouse olfactory bulb. <i>Nature Communications</i> , 2014, 5, 3791.	12.8	36
32	Wavelet-based multi-resolution statistics for optical imaging signals: Application to automated detection of odour activated glomeruli in the mouse olfactory bulb. <i>NeuroImage</i> , 2007, 34, 1020-1035.	4.2	31
33	Making scents of olfactory neurogenesis. <i>Journal of Physiology (Paris)</i> , 2002, 96, 115-122.	2.1	28
34	Local neurons play key roles in the mammalian olfactory bulb. <i>Journal of Physiology (Paris)</i> , 2003, 97, 517-528.	2.1	28
35	Gamma Oscillations in a Nonlinear Regime: A Minimal Model Approach Using Heterogeneous Integrate-and-Fire Networks. <i>Neural Computation</i> , 2008, 20, 2973-3002.	2.2	25
36	Sensory-Evoked Intrinsic Imaging Signals in the Olfactory Bulb Are Independent of Neurovascular Coupling. <i>Cell Reports</i> , 2015, 12, 313-325.	6.4	25

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37	Evolution of immune chemoreceptors into sensors of the outside world. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7397-7402.	7.1	24
38	Paradoxical neuronal hyperexcitability in a mouse model of mitochondrial pyruvate import deficiency. ELife, 2022, 11, .	6.0	21
39	General constraints for batch Multiple-Target Tracking applied to large-scale videomicroscopy. , 2008, , .		20
40	Alteration of Nrp1 signaling at different stages of olfactory neuron maturation promotes glomerular shifts along distinct axes in the olfactory bulb. Development (Cambridge), 2016, 143, 3817-3825.	2.5	20
41	Similarity and Strength of Glomerular Odor Representations Define a Neural Metric of Sniff-Invariant Discrimination Time. Cell Reports, 2019, 28, 2966-2978.e5.	6.4	19
42	Dynamic perceptual feature selectivity in primary somatosensory cortex upon reversal learning. Nature Communications, 2020, 11, 3245.	12.8	19
43	Superior Colliculus to VTA pathway controls orienting response and influences social interaction in mice. Nature Communications, 2022, 13, 817.	12.8	19
44	Dense encoding of natural odorants by ensembles of sparsely activated neurons in the olfactory bulb. Scientific Reports, 2016, 6, 36514.	3.3	16
45	Disruption of Kcc2-dependent inhibition of olfactory bulb output neurons suggests its importance in odour discrimination. Nature Communications, 2016, 7, 12043.	12.8	14
46	Transcriptional adaptation of olfactory sensory neurons to GPCR identity and activity. Nature Communications, 2022, 13, .	12.8	13
47	Convergence of FPR-rs3-expressing neurons in the mouse accessory olfactory bulb. Molecular and Cellular Neurosciences, 2013, 56, 140-147.	2.2	11
48	From immune to olfactory expression: neofunctionalization of formyl peptide receptors. Cell and Tissue Research, 2021, 383, 387-393.	2.9	8
49	Demonstration of cortical recording and reduced inflammatory response using flexible polymer neural probes. , 2007, , .		7
50	Transient Deregulation of Canonical Wnt Signaling in Developing Pyramidal Neurons Leads to Dendritic Defects and Impaired Behavior. Cell Reports, 2019, 27, 1487-1502.e6.	6.4	7
51	Temporal Coding in Olfaction. Frontiers in Neuroscience, 2009, , 329-351.	0.0	7
52	Inferring connection proximity in networks of electrically coupled cells by subthreshold frequency response analysis. Journal of Computational Neuroscience, 2008, 24, 330-345.	1.0	5
53	On flux-limited morphogenesis. Physics of Life Reviews, 2013, 10, 495-497.	2.8	1
54	MÃ©moire olfactive et migration neuronale chez l'adulte.. Medecine/Sciences, 1998, 14, 771.	0.2	1

#	ARTICLE	IF	CITATIONS
55	Physiology and molecular biology brought to single-cell level. Methods in Enzymology, 2000, 313, 143-156.	1.0	0
56	Wavelet-Based Detection of Stimulus Responses in Time-Lapse Microscopy. , 0, , .		0
57	WAVELET-BASED STATISTICAL ANALYSIS FOR OPTICAL IMAGING IN MOUSE OLFACTORY BULB. , 2007, , .		0