Richard Benton

List of Publications by Year
in descending order

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55 papers	7,213 citations	186265 28 h-index	161849 54 g-index
70 all docs	70 docs citations	70 times ranked	4736 citing authors

#	Article	IF	Citations
1	Targeted molecular profiling of rare olfactory sensory neurons identifies fate, wiring, and functional determinants. ELife, 2021, 10, .	6.0	6
2	Olfactory receptorâ€“dependent receptor repression in Drosophila. Science Advances, 2021, 7, .	10.3	8
3	Olfactory Receptor Gene Regulation in Insects: Multiple Mechanisms for Singular Expression. Frontiers in Neuroscience, 2021, 15, 738088.	2.8	8
4	Drosophila sechellia: A Genetic Model for Behavioral Evolution and Neuroecology. Annual Review of Genetics, 2021, 55, 527-554.	7.6	28
5	Molecular reconstruction of recurrent evolutionary switching in olfactory receptor specificity. ELife, 2021, 10, .	6.0	15
6	Molecular mechanisms of olfactory detection in insects: beyond receptors. Open Biology, 2020, 10, 200252.	3.6	58
7	Animal Behavior: A Neural Basis of Individuality. Current Biology, 2020, 30, R710-R712.	3.9	9
8	Olfactory receptor and circuit evolution promote host specialization. Nature, 2020, 579, 402-408.	27.8	131
9	Mate discrimination among subspecies through a conserved olfactory pathway. Science Advances, 2020, 6, eaba5279.	10.3	41
10	Functional integration of â€œundeadâ€•neurons in the olfactory system. Science Advances, 2020, 6, eaaz7238.	10.3	31
11	Enhanced Retrieval of Taste Associative Memory by Chemogenetic Activation of Locus Coeruleus Norepinephrine Neurons. Journal of Neuroscience, 2020, 40, 8367-8385.	3.6	10
12	A putative origin of the insect chemosensory receptor superfamily in the last common eukaryotic ancestor. ELife, 2020, 9, .	6.0	16
13	In vivo assembly and trafficking of olfactory Ionotropic Receptors. BMC Biology, 2019, 17, 34.	3.8	28
14	Sensory neuron lineage mapping and manipulation in the Drosophila olfactory system. Nature Communications, 2019, 10, 643.	12.8	30
15	A partial genome assembly of the miniature parasitoid wasp, Megaphragma amalphitanum. PLoS ONE, 2019, 14, e0226485.	2.5	10
16	Ionotropic Receptors Specify the Morphogenesis of Phasic Sensors Controlling Rapid Thermal Preference in Drosophila. Neuron, 2019, 101, 738-747.e3.	8.1	90
17	Molecular evolution of juvenile hormone esterase-like proteins in a socially exchanged fluid. Scientific Reports, 2018, 8, 17830.	3.3	27
18	An expression atlas of variant ionotropic glutamate receptors identifies a molecular basis of carbonation sensing. Nature Communications, 2018, 9, 4252.	12.8	116

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19	Evolution of Acid-Sensing Olfactory Circuits in Drosophilids. Neuron, 2017, 93, 661-676.e6.	8.1	182
20	A mechanosensory receptor required for food texture detection in Drosophila. Nature Communications, 2017, 8, 14192.	12.8	73
21	Climbing favours the tripod gait over alternative faster insect gaits. Nature Communications, 2017, 8, 14494.	12.8	86
22	Second-GenerationDrosophilaChemical Tags: Sensitivity, Versatility, and Speed. Genetics, 2017, 205, 1399-1408.	2.9	25
23	The neurobiology of gustation in insect disease vectors: progress and potential. Current Opinion in Insect Science, 2017, 20, 19-27.	4.4	14
24	Multisensory neural integration of chemical and mechanical signals. BioEssays, 2017, 39, 1700060.	2.5	8
25	Open questions: Tackling Darwinâ€™s â€œinstinctsâ€: the genetic basis of behavioral evolution. BMC Biology, 2017, 15, 26.	3.8	14
26	FlyLimbTracker: An active contour based approach for leg segment tracking in unmarked, freely behaving Drosophila. PLoS ONE, 2017, 12, e0173433.	2.5	35
27	Ionotropic Receptor-dependent moist and dry cells control hygrosensation in Drosophila. ELife, 2017, 6, .	6.0	161
28	Distinct combinations of variant ionotropic glutamate receptors mediate thermosensation and hygrosensation in Drosophila. ELife, 2016, 5, .	6.0	202
29	Extensive local adaptation within the chemosensory system following Drosophila melanogasterâ€™s global expansion. Nature Communications, 2016, 7, ncomms11855.	12.8	48
30	A CD36 ectodomain mediates insect pheromone detection via a putative tunnelling mechanism. Nature Communications, 2016, 7, 11866.	12.8	149
31	A molecular and neuronal basis for amino acid sensing in the Drosophila larva. Scientific Reports, 2016, 6, 34871.	3.3	121
32	Olfactory receptor pseudo-pseudogenes. Nature, 2016, 539, 93-97.	27.8	140
33	Ir40a neurons are not DEET detectors. Nature, 2016, 534, E5-E7.	27.8	27
34	Genomic insights into the Ixodes scapularis tick vector of Lyme disease. Nature Communications, 2016, 7, 10507.	12.8	450
35	Sexual circuitry in Drosophila. Current Opinion in Neurobiology, 2016, 38, 18-26.	4.2	141
36	The Ionotropic Receptors IR21a and IR25a mediate cool sensing in Drosophila. ELife, 2016, 5, .	6.0	191

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37	Fluctuation-Driven Neural Dynamics Reproduce Drosophila Locomotor Patterns. PLoS Computational Biology, 2015, 11, e1004577.	3.2	6
38	Amino acid coevolution reveals three-dimensional structure and functional domains of insect odorant receptors. Nature Communications, 2015, 6, 6077.	12.8	113
39	A cnidarian homologue of an insect gustatory receptor functions in developmental body patterning. Nature Communications, 2015, 6, 6243.	12.8	57
40	Multigene Family Evolution: Perspectives from Insect Chemoreceptors. Trends in Ecology and Evolution, 2015, 30, 590-600.	8.7	140
41	Neural Circuits: Male Mating Motifs. Neuron, 2015, 87, 912-914.	8.1	0
42	Drosophila Ionotropic Receptor 25a mediates circadian clock resetting by temperature. Nature, 2015, 527, 516-520.	27.8	216
43	Mechanosensory interactions drive collective behaviour in Drosophila. Nature, 2015, 519, 233-236.	27.8	157
44	Ionotropic Receptors (IRs): Chemosensory ionotropic glutamate receptors in Drosophila and beyond. Insect Biochemistry and Molecular Biology, 2013, 43, 888-897.	2.7	411
45	Visualizing Olfactory Receptor Expression and Localization in Drosophila. Methods in Molecular Biology, 2013, 1003, 211-228.	0.9	41
46	Calcium Imaging of Odor-evoked Responses in the Drosophila Antennal Lobe. Journal of Visualized Experiments, 2012, , .	0.3	29
47	Functional Architecture of Olfactory Ionotropic Glutamate Receptors. Neuron, 2011, 69, 44-60.	8.1	545
48	Decision Making: Singin' in the Brain. Neuron, 2011, 69, 399-401.	8.1	5
49	Complementary Function and Integrated Wiring of the Evolutionarily DistinctDrosophilaOlfactory Subsystems. Journal of Neuroscience, 2011, 31, 13357-13375.	3.6	464
50	Chemosensory Ecology: Deceiving Drosophila. Current Biology, 2010, 20, R891-R893.	3.9	1
51	Acid sensing by the Drosophila olfactory system. Nature, 2010, 468, 691-695.	27.8	324
52	Ancient Protostome Origin of Chemosensory Ionotropic Glutamate Receptors and the Evolution of Insect Taste and Olfaction. PLoS Genetics, 2010, 6, e1001064.	3.5	680
53	Molecular Basis of Odor Detection in Insects. Annals of the New York Academy of Sciences, 2009, 1170, 478-481.	3.8	19
54	Variant Ionotropic Glutamate Receptors as Chemosensory Receptors in Drosophila. Cell, 2009, 136, 149-162.	28.9	1,207

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55	Chemical sensing in Drosophila. Current Opinion in Neurobiology, 2008, 18, 357-363.	4.2	49