Leslie B Vosshall

List of Publications by Year
in descending order

86	21,314	28274 55	53230 85
papers	citations	h-index	g-index

112	112	112	12700
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparative Genomics of the Eukaryotes. Science, 2000, 287, 2204-2215.	12.6	1,573
2	Variant Ionotropic Glutamate Receptors as Chemosensory Receptors in Drosophila. Cell, 2009, 136, 149-162.	28.9	1,207
3	Topographic organization of sensory projections to the olfactory bulb. Cell, 1994, 79, 981-991.	28.9	1,172
4	Or83b Encodes a Broadly Expressed Odorant Receptor Essential for Drosophila Olfaction. Neuron, 2004, 43, 703-714.	8.1	1,159
5	A Spatial Map of Olfactory Receptor Expression in the Drosophila Antenna. Cell, 1999, 96, 725-736.	28.9	1,104
6	An Olfactory Sensory Map in the Fly Brain. Cell, 2000, 102, 147-159.	28.9	973
7	Insect olfactory receptors are heteromeric ligand-gated ion channels. Nature, 2008, 452, 1002-1006.	27.8	955
8	Atypical Membrane Topology and Heteromeric Function of Drosophila Odorant Receptors In Vivo. PLoS Biology, 2006, 4, e20.	5.6	852
9	Molecular Architecture of Smell and Taste inDrosophila. Annual Review of Neuroscience, 2007, 30, 505-533.	10.7	787
10	Two-Photon Calcium Imaging Reveals an Odor-Evoked Map of Activity in the Fly Brain. Cell, 2003, 112, 271-282.	28.9	752
11	Two chemosensory receptors together mediate carbon dioxide detection in Drosophila. Nature, 2007, 445, 86-90.	27.8	601
12	A Systematic Nomenclature for the Insect Brain. Neuron, 2014, 81, 755-765.	8.1	564
13	Genetic variation in a human odorant receptor alters odour perception. Nature, 2007, 449, 468-472.	27.8	549
14	Genetic and Functional Subdivision of the Drosophila Antennal Lobe. Current Biology, 2005, 15, 1548-1553.	3.9	540
15	An essential role for a CD36-related receptor in pheromone detection in Drosophila. Nature, 2007, 450, 289-293.	27.8	504
16	Sensing Odorants and Pheromones with Chemosensory Receptors. Annual Review of Physiology, 2009, 71, 307-332.	13.1	487
17	Improved reference genome of Aedes aegypti informs arbovirus vector control. Nature, 2018, 563, 501-507.	27.8	426
18	Evolution of mosquito preference for humans linked to an odorant receptor. Nature, 2014, 515, 222-227.	27.8	389

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19	orco mutant mosquitoes lose strong preference for humans and are not repelled by volatile DEET. Nature, 2013, 498, 487-491.	27.8	388
20	Multimodal Integration of Carbon Dioxide and Other Sensory Cues Drives Mosquito Attraction to Humans. Cell, 2014, 156, 1060-1071.	28.9	380
21	Genome Engineering with CRISPR-Cas9 in the Mosquito Aedes aegypti. Cell Reports, 2015, 11, 51-60.	6.4	351
22	Insect Odorant Receptors Are Molecular Targets of the Insect Repellent DEET. Science, 2008, 319, 1838-1842.	12.6	295
23	A Unified Nomenclature System for the Insect Olfactory Coreceptor. Chemical Senses, 2011, 36, 497-498.	2.0	280
24	Functional conservation of an insect odorant receptor gene across 250 million years of evolution. Current Biology, 2005, 15, R119-R121.	3.9	245
25	Chemotaxis Behavior Mediated by Single Larval Olfactory Neurons in Drosophila. Current Biology, 2005, 15, 2086-2096.	3.9	224
26	Axonal Targeting of Olfactory Receptor Neurons in Drosophila Is Controlled by Dscam. Neuron, 2003, 37, 221-231.	8.1	194
27	Predicting human olfactory perception from chemical features of odor molecules. Science, 2017, 355, 820-826.	12.6	194
28	The neurotranscriptome of the Aedes aegypti mosquito. BMC Genomics, 2016, 17, 32.	2.8	188
29	Small molecule drug screening in Drosophila identifies the 5HT2A receptor as a feeding modulation target. Scientific Reports, 2013, 3, srep02120.	3.3	182
30	Activity-Dependent Plasticity in an Olfactory Circuit. Neuron, 2007, 56, 838-850.	8.1	172
31	Bilateral olfactory sensory input enhances chemotaxis behavior. Nature Neuroscience, 2008, 11, 187-199.	14.8	167
32	A natural polymorphism alters odour and DEET sensitivity in an insect odorant receptor. Nature, 2011, 478, 511-514.	27.8	164
33	Controversy and consensus: noncanonical signaling mechanisms in the insect olfactory system. Current Opinion in Neurobiology, 2009, 19, 284-292.	4.2	141
34	Circadian rhythms in drosophila can be driven by period expression in a restricted group of central brain cells. Neuron, 1995, 15, 345-360.	8.1	135
35	Olfaction in Drosophila. Current Opinion in Neurobiology, 2000, 10, 498-503.	4.2	131
36	Amino Acid Residues Contributing to Function of the Heteromeric Insect Olfactory Receptor Complex. PLoS ONE, 2012, 7, e32372.	2.5	131

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37	A circuit supporting concentration-invariant odor perception in Drosophila. Journal of Biology, 2009, 8, 9.	2.7	126
38	Genetic variation across the human olfactory receptor repertoire alters odor perception. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9475-9480.	7.1	124
39	Diverse Odor-Conditioned Memories Require Uniquely Timed Dorsal Paired Medial Neuron Output. Neuron, 2004, 44, 521-533.	8.1	120
40	A Taste Circuit that Regulates Ingestion by Integrating Food and Hunger Signals. Cell, 2016, 165, 715-729.	28.9	119
41	Olfactory perception of chemically diverse molecules. BMC Neuroscience, 2016, 17, 55.	1.9	103
42	A psychophysical test of the vibration theory of olfaction. Nature Neuroscience, 2004, 7, 337-338.	14.8	100
43	The cation channel TRPA1 tunes mosquito thermotaxis to host temperatures. ELife, 2015, 4, .	6.0	98
44	The Olfactory Sensory Map in Drosophila. Advances in Experimental Medicine and Biology, 2008, 628, 102-114.	1.6	96
45	Abdominal-B Neurons Control Drosophila Virgin Female Receptivity. Current Biology, 2014, 24, 1584-1595.	3.9	87
46	Functional and Genetic Characterization of Neuropeptide Y-Like Receptors in Aedes aegypti. PLoS Neglected Tropical Diseases, 2013, 7, e2486.	3.0	86
47	The Molecular Logic of Olfaction in Drosophila. Chemical Senses, 2001, 26, 207-213.	2.0	79
48	Aedes aegypti Mosquitoes Use Their Legs to Sense DEET on Contact. Current Biology, 2019, 29, 1551-1556.e5.	3.9	79
49	New short period mutations of the Drosophila clock gene per. Neuron, 1992, 9, 575-581.	8.1	76
50	The Survival Advantage of Olfaction in a Competitive Environment. Current Biology, 2008, 18, 1153-1155.	3.9	74
51	Small-Molecule Agonists of Ae. aegypti Neuropeptide Y Receptor Block Mosquito Biting. Cell, 2019, 176, 687-701.e5.	28.9	74
52	The ion channel ppk301 controls freshwater egg-laying in the mosquito Aedes aegypti. ELife, 2019, 8, .	6.0	74
53	How to turn an organism into a model organism in 10 â€˜easyâ€™ steps. Journal of Experimental Biology, 2020, 223, .	1.7	73
54	Topographic Mapping--The Olfactory System. Cold Spring Harbor Perspectives in Biology, 2010, 2, a001776-a001776.	5.5	70

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55	Into the mind of a fly. Nature, 2007, 450, 193-197.	27.8	68
56	An olfactory demography of a diverse metropolitan population. BMC Neuroscience, 2012, 13, 122.	1.9	66
57	Opposing Dopaminergic and GABAergic Neurons Control the Duration and Persistence of Copulation in Drosophila. Cell, 2013, 155, 881-893.	28.9	64
58	Post-fasting olfactory, transcriptional, and feeding responses in Drosophila. Physiology and Behavior, 2012, 105, 544-553.	2.1	60
59	Sensory Discrimination of Blood and Floral Nectar by Aedes aegypti Mosquitoes. Neuron, 2020, 108, 1163-1180.e12.	8.1	57
60	Influence of odorant receptor repertoire on odor perception in humans and fruit flies. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5614-5619.	7.1	54
61	Better smelling through genetics: mammalian odor perception. Current Opinion in Neurobiology, 2008, 18, 364-369.	4.2	52
62	General Visual and Contingent Thermal Cues Interact to Elicit Attraction in Female Aedes aegypti Mosquitoes. Current Biology, 2019, 29, 2250-2257.e4.	3.9	50
63	SMELL-S and SMELL-R: Olfactory tests not influenced by odor-specific insensitivity or prior olfactory experience. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11275-11284.	7.1	47
64	Decoding olfaction in Drosophila. Current Opinion in Neurobiology, 2003, 13, 103-110.	4.2	45
65	A Peptide Signaling System that Rapidly Enforces Paternity in the Aedes aegypti Mosquito. Current Biology, 2017, 27, 3734-3742.e5.	3.9	43
66	Human olfactory psychophysics. Current Biology, 2004, 14, R875-R878.	3.9	42
67	Laying a controversial smell theory to rest. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6525-6526.	7.1	40
68	Fruitless mutant male mosquitoes gain attraction to human odor. ELife, 2020, 9, .	6.0	39
69	Single Sensillum Recordings in the Insects Drosophila melanogaster and Anopheles gambiae. Journal of Visualized Experiments, 2010, , 1-5.	0.3	38
70	Scent of a Fly. Neuron, 2008, 59, 685-689.	8.1	32
71	Olfaction: Attracting Both Sperm and the Nose. Current Biology, 2004, 14, R918-R920.	3.9	29
72	The Glacial Pace of Scientific Publishing: Why It Hurts Everyone and What We Can Do To Fix It. FASEB Journal, 2012, 26, 3589-3593.	0.5	23

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73	High-resolution Measurement of Odor-Driven Behavior in Drosophila Larvae. Journal of Visualized Experiments, 2008, , .	0.3	21
74	Social Signals: The Secret Language of Mice. Current Biology, 2005, 15, R255-R257.	3.9	19
75	New Clock Mutations in Drosophila. Annals of the New York Academy of Sciences, 1991, 618, 1-10.	3.8	18
76	Wake Up and Smell the Pheromones. Neuron, 2005, 45, 179-181.	8.1	18
77	A natural variant and engineered mutation in a GPCR promote DEET resistance in C. elegans. Nature, 2018, 562, 119-123.	27.8	18
78	A persistent behavioral state enables sustained predation of humans by mosquitoes. ELife, 2022, 11, .	6.0	17
79	Genome editing in non-model organisms opens new horizons for comparative physiology. Journal of Experimental Biology, 2020, 223, .	1.7	15
80	Putting smell on the map. Trends in Neurosciences, 2003, 26, 169-170.	8.6	10
81	Toward a Molecular Description of Pheromone Perception. Neuron, 2003, 39, 881-883.	8.1	9
82	How the Brain Sees Smells. Developmental Cell, 2001, 1, 588-590.	7.0	5
83	Sensory systems. Current Opinion in Neurobiology, 2009, 19, 343-344.	4.2	5
84	Diversity and expression of odorant receptors in Drosophila. , 2003, , 567-591.		5
85	Reprogramming a termite monarchy. Nature Chemical Biology, 2010, 6, 637-638.	8.0	2
86	Behavioral Neuroscience: Learning toÂSuckle with Signature Odor. Current Biology, 2012, 22, R907-R909.	3.9	2