Laurence J Zwiebel

List of Publications by Year
in descending order

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74 papers	7,461 citations	81900 39 h-index	82547 72 g-index
83 all docs	83 docs citations	83 times ranked	4915 citing authors

#	Article	IF	Citations
1	G Protein-Coupled Receptors inAnopheles gambiae. Science, 2002, 298, 176-178.	12.6	630
2	Odorant reception in the malaria mosquito Anopheles gambiae. Nature, 2010, 464, 66-71.	27.8	515
3	Highly evolvable malaria vectors: The genomes of 16 Anopheles mosquitoes. Science, 2015, 347, 1258522.	12.6	492
4	Molecular basis of odor coding in the malaria vector mosquito Anopheles gambiae. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4418-4423.	7.1	358
5	Odor Coding in the Maxillary Palp of the Malaria Vector Mosquito Anopheles gambiae. Current Biology, 2007, 17, 1533-1544.	3.9	314
6	Olfactory regulation of mosquitoâ€"host interactions. Insect Biochemistry and Molecular Biology, 2004, 34, 645-652.	2.7	260
7	Functional agonism of insect odorant receptor ion channels. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8821-8825.	7.1	243
8	Peripheral olfactory signaling in insects. Current Opinion in Insect Science, 2014, 6, 86-92.	4.4	219
9	Spatial repellents: from discovery and development to evidence-based validation. Malaria Journal, 2012, 11, 164.	2.3	210
10	Phylogenetic and Transcriptomic Analysis of Chemosensory Receptors in a Pair of Divergent Ant Species Reveals Sex-Specific Signatures of Odor Coding. PLoS Genetics, 2012, 8, e1002930.	3.5	192
11	Mosquito receptor for human-sweat odorant. Nature, 2004, 427, 212-213.	27.8	189
12	An Engineered orco Mutation Produces Aberrant Social Behavior and Defective Neural Development in Ants. Cell, 2017, 170, 736-747.e9.	28.9	188
13	Epigenetic (re)programming of caste-specific behavior in the ant Camponotus floridanus. Science, 2016, 351, aac6633.	12.6	184
14	A highly conserved candidate chemoreceptor expressed in both olfactory and gustatory tissues in the malaria vector Anopheles gambiae. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 5058-5063.	7.1	182
15	Transcriptome profiling of chemosensory appendages in the malaria vector Anopheles gambiae reveals tissue- and sex-specific signatures of odor coding. BMC Genomics, 2011, 12, 271.	2.8	181
16	Germ-Line Transformation Involving DNA from theperiodLocus inDrosophila melanogaster: Overlapping Genomic Fragments that Restore Circadian and Ultradian Rhythmicity toper⁰andper^{â^'}Mutants. Journal of Neurogenetics, 1986, 3, 249-291.	1.4	176
17	Molecular biology of insect olfaction:recent progress and conceptual models. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2005, 191, 777-790.	1.6	144
18	Blood meal-induced changes to antennal transcriptome profiles reveal shifts in odor sensitivities in Anopheles gambiae. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8260-8265.	7.1	143

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19	Chemoreceptor Evolution in Hymenoptera and Its Implications for the Evolution of Eusociality. Genome Biology and Evolution, 2015, 7, 2407-2416.	2.5	141
20	The molecular and cellular basis of olfactory-driven behavior inAnopheles gambiaelarvae. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6433-6438.	7.1	139
21	Distinct Olfactory Signaling Mechanisms in the Malaria Vector Mosquito Anopheles gambiae. PLoS Biology, 2010, 8, e1000467.	5.6	137
22	Olfactory responses in a gustatory organ of the malaria vector mosquito Anopheles gambiae. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 13526-13531.	7.1	130
23	Cuticular Hydrocarbon Pheromones for Social Behavior and Their Coding in the Ant Antenna. Cell Reports, 2015, 12, 1261-1271.	6.4	121
24	Specialized odorant receptors in social insects that detect cuticular hydrocarbon cues and candidate pheromones. Nature Communications, 2017, 8, 297.	12.8	95
25	Antennal transcriptome profiles of anopheline mosquitoes reveal human host olfactory specialization in Anopheles gambiae. BMC Genomics, 2013, 14, 749.	2.8	94
26	Anopheles gambiae TRPA1 is a heatâ€activated channel expressed in thermosensitive sensilla of female antennae. European Journal of Neuroscience, 2009, 30, 967-974.	2.6	89
27	Identification of a Chemosensory Receptor from the Yellow Fever Mosquito, Aedes aegypti, that is Highly Conserved and Expressed in Olfactory and Gustatory Organs. Chemical Senses, 2004, 29, 403-410.	2.0	86
28	Conservation of Indole Responsive Odorant Receptors in Mosquitoes Reveals an Ancient Olfactory Trait. Chemical Senses, 2011, 36, 149-160.	2.0	86
29	Functional characterization of odorant receptors in the ponerine ant, Harpegnathos saltator. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8586-8591.	7.1	84
30	A New Mutation at thePeriodLocus ofDrosophila MelanogasterWith Some Novel Effects on Circadian Rhythms. Journal of Neurogenetics, 1989, 5, 229-256.	1.4	83
31	Odorant receptor-mediated sperm activation in disease vector mosquitoes. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2566-2571.	7.1	83
32	Variant Ionotropic Receptors in the Malaria Vector Mosquito Anopheles gambiae Tuned to Amines and Carboxylic Acids. Scientific Reports, 2017, 7, 40297.	3.3	81
33	Heteromeric Anopheline Odorant Receptors Exhibit Distinct Channel Properties. PLoS ONE, 2011, 6, e28774.	2.5	72
34	Allosteric Antagonism of Insect Odorant Receptor Ion Channels. PLoS ONE, 2012, 7, e30304.	2.5	69
35	Antennal sensilla of two female anopheline sibling species with differing host ranges. Malaria Journal, 2006, 5, 26.	2.3	66
36	Identification and characterization of an odorant receptor from the West Nile Virus mosquito, Culex quinquefasciatus. Insect Biochemistry and Molecular Biology, 2006, 36, 169-176.	2.7	63

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37	Structureâ€"Activity Relationship of a Broad-Spectrum Insect Odorant Receptor Agonist. ACS Chemical Biology, 2012, 7, 1647-1652.	3.4	62
38	The strength and periodicity of D. melanogaster circadian rhythms are differentially affected by alterations in period gene expression. Neuron, 1991, 6, 753-766.	8.1	56
39	Olfactory receptor gene abundance in invasive breast carcinoma. Scientific Reports, 2019, 9, 13736.	3.3	48
40	A Determinant of Odorant Specificity Is Located at the Extracellular Loop 2-Transmembrane Domain 4 Interface of an Anopheles gambiae Odorant Receptor Subunit. Chemical Senses, 2014, 39, 761-769.	2.0	44
41	Mutagenesis of the orco odorant receptor co-receptor impairs olfactory function in the malaria vector Anopheles coluzzii. Insect Biochemistry and Molecular Biology, 2020, 127, 103497.	2.7	41
42	Antennal-Expressed Ammonium Transporters in the Malaria Vector Mosquito Anopheles gambiae. PLoS ONE, 2014, 9, e111858.	2.5	39
43	A Conserved Aspartic Acid Is Important for Agonist (VUAA1) and Odorant/Tuning Receptor-Dependent Activation of the Insect Odorant Co-Receptor (Orco). PLoS ONE, 2013, 8, e70218.	2.5	38
44	Suboptimal Larval Habitats Modulate Oviposition of the Malaria Vector Mosquito Anopheles coluzzii. PLoS ONE, 2016, 11, e0149800.	2.5	37
45	Blockade of Insect Odorant Receptor Currents by Amiloride Derivatives. Chemical Senses, 2013, 38, 221-229.	2.0	35
46	Chemosensory sensitivity reflects reproductive status in the ant Harpegnathos saltator. Scientific Reports, 2017, 7, 3732.	3.3	33
47	Characterization of Chemosensory Responses on the Labellum of the Malaria Vector Mosquito, Anopheles coluzzii. Scientific Reports, 2018, 8, 5656.	3.3	32
48	Divergent and Conserved Elements Comprise the Chemoreceptive Repertoire of the Nonblood-Feeding Mosquito Toxorhynchites amboinensis. Genome Biology and Evolution, 2014, 6, 2883-2896.	2.5	31
49	Deciphering the olfactory repertoire of the tiger mosquito Aedes albopictus. BMC Genomics, 2017, 18, 770.	2.8	30
50	Gene editing reveals obligate and modulatory components of the CO2 receptor complex in the malaria vector mosquito, Anopheles coluzzii. Insect Biochemistry and Molecular Biology, 2020, 127, 103470.	2.7	30
51	GÎ±encoding gene family of the malaria vector mosquitoAnopheles gambiae: Expression analysis and immunolocalization of AGÎ±qand AGÎ±oin female antennae. Journal of Comparative Neurology, 2006, 499, 533-545.	1.6	27
52	Genomic Organization and Characterization of the white Locus of the Mediterranean Fruitfly, Ceratitis capitata. Genetics, 2001, 157, 1245-1255.	2.9	27
53	Molecular characterization of arrestin family members in the malaria vector mosquito, Anopheles gambiae. Insect Molecular Biology, 2003, 12, 641-650.	2.0	25
54	Mutational Analysis of Cysteine Residues of the Insect Odorant Co-receptor (Orco) from Drosophila melanogaster Reveals Differential Effects on Agonist- and Odorant-tuning Receptor-dependent Activation. Journal of Biological Chemistry, 2014, 289, 31837-31845.	3.4	25

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55	Disease vectors in the era of next generation sequencing. Genome Biology, 2016, 17, 95.	8.8	25
56	Novel highâ€throughput screens of Anopheles gambiae odorant receptors reveal candidate behaviourâ€modifying chemicals for mosquitoes. Physiological Entomology, 2012, 37, 33-41.	1.5	24
57	Odorant-specific requirements for arrestin function inDrosophilaolfaction. Journal of Neurobiology, 2005, 63, 15-28.	3.6	21
58	Heterogeneous expression of the ammonium transporter AgAmt in chemosensory appendages of the malaria vector, Anopheles gambiae. Insect Biochemistry and Molecular Biology, 2020, 120, 103360.	2.7	21
59	Odor coding of nestmate recognition in the eusocial ant Camponotus floridanus. Journal of Experimental Biology, 2020, 223, .	1.7	19
60	Discrete roles of Ir76b ionotropic coreceptor impact olfaction, blood feeding, and mating in the malaria vector mosquito Anopheles coluzzii. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	18
61	The Molecular Receptive Range of a Lactone Receptor in Anopheles gambiae. Chemical Senses, 2013, 38, 19-25.	2.0	15
62	Antennal Olfactory Physiology and Behavior of Males of the Ponerine Ant Harpegnathos saltator. Journal of Chemical Ecology, 2018, 44, 999-1007.	1.8	13
63	Profiles of soluble proteins in chemosensory organs of three members of the afro-tropical Anopheles gambiae complex. Comparative Biochemistry and Physiology Part D: Genomics and Proteomics, 2017, 24, 41-50.	1.0	12
64	Advances in the Study of Olfaction in Eusocial Ants. Insects, 2021, 12, 252.	2.2	12
65	Pleiotropic Odorant-Binding Proteins Promote Aedes aegypti Reproduction and Flavivirus Transmission. MBio, 2021, 12, e0253121.	4.1	12
66	Narrow SAR in odorant sensing Orco receptor agonists. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 2613-2616.	2.2	10
67	Molecular Characterization of Larval Peripheral Thermosensory Responses of the Malaria Vector Mosquito Anopheles gambiae. PLoS ONE, 2013, 8, e72595.	2.5	10
68	Circadian oscillations in protein and mRNA levels of the period gene of Drosophila melanogaster. Biochemical Society Transactions, 1991, 19, 533-537.	3.4	8
69	Isolation and Characterization of the Xanthine Dehydrogenase Gene of the Mediterranean Fruit Fly, Ceratitis capitata. Genetics, 2001, 158, 1645-1655.	2.9	8
70	The Future of Insect Repellent Discovery and Development. Outlooks on Pest Management, 2014, 25, 265-270.	0.2	6
71	Ammonium transporter AcAmt mutagenesis uncovers reproductive and physiological defects without impacting olfactory responses to ammonia in the malaria vector mosquito Anopheles coluzzii. Insect Biochemistry and Molecular Biology, 2021, 134, 103578.	2.7	6
72	Olfactory genomics of eusociality within the Hymenoptera. , 2021, , 507-546.		5

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73	Neuronal odor coding in the larval sensory cone of Anopheles coluzzii: Complex responses from a simple system. Cell Reports, 2021, 36, 109555.	6.4	4
74	Transcriptome profiles of Anopheles gambiae harboring natural low-level Plasmodium infection reveal adaptive advantages for the mosquito. Scientific Reports, 2021, 11, 22578.	3.3	1