

Hiroaki Matsunami

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

6,215
citations

101543

36
h-index

76900

74
g-index

93
all docs

93
docs citations

93
times ranked

6676
citing authors

#	ARTICLE	IF	CITATIONS
1	Ageing-related olfactory loss is associated with olfactory stem cell transcriptional alterations in humans. <i>Journal of Clinical Investigation</i> , 2022, 132, .	8.2	20
2	Olfactory receptor 2 in vascular macrophages drives atherosclerosis by NLRP3-dependent IL-1 production. <i>Science</i> , 2022, 375, 214-221.	12.6	81
3	Sequence coevolution and structure stabilization modulate olfactory receptor expression. <i>Biophysical Journal</i> , 2022, 121, 830-840.	0.5	4
4	Large-Scale G Protein-Coupled Olfactory Receptorâ€“Ligand Pairing. <i>ACS Central Science</i> , 2022, 8, 379-387.	11.3	23
5	Hot Spot Mutagenesis Improves the Functional Expression of Unique Mammalian Odorant Receptors. <i>International Journal of Molecular Sciences</i> , 2022, 23, 277.	4.1	6
6	Interactions among key residues regulate mammalian odorant receptor trafficking. <i>FASEB Journal</i> , 2022, 36, .	0.5	1
7	Abstract 2655: The GPCR OR13A1 is essential for lymphoma cells. <i>Cancer Research</i> , 2022, 82, 2655-2655.	0.9	1
8	Estrogen and sex-dependent loss of the vocal learning system in female zebra finches. <i>Hormones and Behavior</i> , 2021, 129, 104911.	2.1	11
9	19-hydroxy Steroids in the Aromatase Reaction: Review on Expression and Potential Functions. <i>Journal of the Endocrine Society</i> , 2021, 5, bvab050.	0.2	6
10	Generation and Characterization of a Cell Type-Specific, Inducible Cre-Driver Line to Study Olfactory Processing. <i>Journal of Neuroscience</i> , 2021, 41, 6449-6467.	3.6	4
11	Machine Learning Assisted Approach for Finding Novel High Activity Agonists of Human Ectopic Olfactory Receptors. <i>International Journal of Molecular Sciences</i> , 2021, 22, 11546.	4.1	10
12	Comparative Genomic Analysis of the Pheromone Receptor Class 1 Family (V1R) Reveals Extreme Complexity in Mouse Lemurs (Genus, <i>Microcebus</i>) and a Chromosomal Hotspot across Mammals. <i>Genome Biology and Evolution</i> , 2020, 12, 3562-3579.	2.5	12
13	Non-neuronal expression of SARS-CoV-2 entry genes in the olfactory system suggests mechanisms underlying COVID-19-associated anosmia. <i>Science Advances</i> , 2020, 6, .	10.3	865
14	Modulation of the combinatorial code of odorant receptor response patterns in odorant mixtures. <i>Molecular and Cellular Neurosciences</i> , 2020, 104, 103469.	2.2	33
15	Single-cell analysis of olfactory neurogenesis and differentiation in adult humans. <i>Nature Neuroscience</i> , 2020, 23, 323-326.	14.8	165
16	Structural instability and divergence from conserved residues underlie intracellular retention of mammalian odorant receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 2957-2967.	7.1	27
17	Maternally inherited peptides as strain-specific chemosignals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 30738-30743.	7.1	8
18	Concentration-Dependent Recruitment of Mammalian Odorant Receptors. <i>ENeuro</i> , 2020, 7, ENEURO.0103-19.2019.	1.9	12

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19	Semiochemical responsive olfactory sensory neurons are sexually dimorphic and plastic. <i>ELife</i> , 2020, 9, .	6.0	21
20	The N-terminal region of RTP1S plays important roles in dimer formation and odorant receptor-trafficking. <i>Journal of Biological Chemistry</i> , 2019, 294, 14661-14673.	3.4	15
21	Real-time In Vitro Monitoring of Odorant Receptor Activation by an Odorant in the Vapor Phase. <i>Journal of Visualized Experiments</i> , 2019, , .	0.3	3
22	A Scalable, Multiplexed Assay for Decoding GPCR-Ligand Interactions with RNA Sequencing. <i>Cell Systems</i> , 2019, 8, 254-260.e6.	6.2	22
23	Axonal Odorant Receptors Mediate Axon Targeting. <i>Cell Reports</i> , 2019, 29, 4334-4348.e7.	6.4	19
24	Beta-caryophyllene enhances wound healing through multiple routes. <i>PLoS ONE</i> , 2019, 14, e0216104.	2.5	60
25	Mammalian class I odorant receptors exhibit a conserved vestibular-binding pocket. <i>Cellular and Molecular Life Sciences</i> , 2019, 76, 995-1004.	5.4	16
26	Odorant Receptor 7D4 Activation Dynamics. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4554-4558.	13.8	26
27	Odorant Receptor 7D4 Activation Dynamics. <i>Angewandte Chemie</i> , 2018, 130, 4644-4648.	2.0	8
28	Molecular mechanism of activation of human musk receptors OR5AN1 and OR1A1 by (<i>R</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 3 Sciences of the United States of America, 2018, 115, E3950-E3958.	7.1	57
29	Structureâ€“Function Relationships of Olfactory and Taste Receptors. <i>Chemical Senses</i> , 2018, 43, 81-87.	2.0	45
30	An Antimicrobial Peptide and Its Neuronal Receptor Regulate Dendrite Degeneration in Aging and Infection. <i>Neuron</i> , 2018, 97, 125-138.e5.	8.1	79
31	Carbon chain shape selectivity by the mouse olfactory receptor OR-17. <i>Organic and Biomolecular Chemistry</i> , 2018, 16, 2541-2548.	2.8	10
32	Lessons from single-cell transcriptome analysis of oxygen-sensing cells. <i>Cell and Tissue Research</i> , 2018, 372, 403-415.	2.9	8
33	The role of Olfr78 in the breathing circuit of mice. <i>Nature</i> , 2018, 561, E33-E40.	27.8	43
34	Vapor detection and discrimination with a panel of odorant receptors. <i>Nature Communications</i> , 2018, 9, 4556.	12.8	58
35	A Testosterone Metabolite 19-Hydroxyandrostenedione Induces Neuroendocrine Trans-Differentiation of Prostate Cancer Cells via an Ectopic Olfactory Receptor. <i>Frontiers in Oncology</i> , 2018, 8, 162.	2.8	41
36	High-Throughput Odorant Receptor Deorphanization Via Phospho-S6 Ribosomal Protein Immunoprecipitation and mRNA Profiling. <i>Methods in Molecular Biology</i> , 2018, 1820, 95-112.	0.9	5

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37	Numerical Models and In Vitro Assays to Study Odorant Receptors. <i>Methods in Molecular Biology</i> , 2018, 1820, 77-93.	0.9	14
38	Split luciferase complementation assay for the analysis of G protein-coupled receptor ligand response in <i>Saccharomyces cerevisiae</i> . <i>Biotechnology and Bioengineering</i> , 2017, 114, 1354-1361.	3.3	3
39	The role of metals in mammalian olfaction of low molecular weight organosulfur compounds. <i>Natural Product Reports</i> , 2017, 34, 529-557.	10.3	33
40	Live-cell Measurement of Odorant Receptor Activation Using a Real-time cAMP Assay. <i>Journal of Visualized Experiments</i> , 2017, , .	0.3	9
41	Modification of the response of olfactory receptors to acetophenone by CYP1a2. <i>Scientific Reports</i> , 2017, 7, 10167.	3.3	32
42	Variation in olfactory neuron repertoires is genetically controlled and environmentally modulated. <i>ELife</i> , 2017, 6, .	6.0	86
43	Olfactory receptor accessory proteins play crucial roles in receptor function and gene choice. <i>ELife</i> , 2017, 6, .	6.0	34
44	Smelling Sulfur: Copper and Silver Regulate the Response of Human Odorant Receptor OR2T11 to Low-Molecular-Weight Thiols. <i>Journal of the American Chemical Society</i> , 2016, 138, 13281-13288.	13.7	60
45	The human olfactory transcriptome. <i>BMC Genomics</i> , 2016, 17, 619.	2.8	87
46	Single cell transcriptome analysis of mouse carotid body glomus cells. <i>Journal of Physiology</i> , 2016, 594, 4225-4251.	2.9	90
47	Human olfactory receptor responses to odorants. <i>Scientific Data</i> , 2015, 2, 150002.	5.3	102
48	Molecular recognition of ketamine by a subset of olfactory G protein-coupled receptors. <i>Science Signaling</i> , 2015, 8, ra33.	3.6	14
49	Muscarinic acetylcholine receptor M3 modulates odorant receptor activity via inhibition of β 2-arrestin-2 recruitment. <i>Nature Communications</i> , 2015, 6, 6448.	12.8	18
50	Implausibility of the vibrational theory of olfaction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E2766-74.	7.1	76
51	Cyclic Regulation of Sensory Perception by a Female Hormone Alters Behavior. <i>Cell</i> , 2015, 161, 1334-1344.	28.9	161
52	Responsiveness of G protein-coupled odorant receptors is partially attributed to the activation mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14966-14971.	7.1	48
53	Mammalian odorant receptors: functional evolution and variation. <i>Current Opinion in Neurobiology</i> , 2015, 34, 54-60.	4.2	33
54	Reply to Turin et al.: Vibrational theory of olfaction is implausible. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E3155.	7.1	19

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55	Conserved Residues Control Activation of Mammalian G Protein-Coupled Odorant Receptors. <i>Journal of the American Chemical Society</i> , 2015, 137, 8611-8616.	13.7	69
56	Molecular profiling of activated olfactory neurons identifies odorant receptors for odors in vivo. <i>Nature Neuroscience</i> , 2015, 18, 1446-1454.	14.8	106
57	Improving the odorant sensitivity of olfactory receptor-expressing yeast with accessory proteins. <i>Analytical Biochemistry</i> , 2015, 471, 1-8.	2.4	26
58	Calreticulin: Roles in Cell-Surface Protein Expression. <i>Membranes</i> , 2014, 4, 630-641.	3.0	28
59	<i>In Vivo</i> Identification of Eugenol-Responsive and Muscone-Responsive Mouse Odorant Receptors. <i>Journal of Neuroscience</i> , 2014, 34, 15669-15678.	3.6	48
60	The missense of smell: functional variability in the human odorant receptor repertoire. <i>Nature Neuroscience</i> , 2014, 17, 114-120.	14.8	269
61	QM/MM Model of the Mouse Olfactory Receptor MOR244-3 Validated by Site-Directed Mutagenesis Experiments. <i>Biophysical Journal</i> , 2014, 107, L5-L8.	0.5	32
62	Aldehyde Recognition and Discrimination by Mammalian Odorant Receptors via Functional Group-Specific Hydration Chemistry. <i>ACS Chemical Biology</i> , 2014, 9, 2563-2571.	3.4	19
63	Astringency: A More Stringent Definition. <i>Chemical Senses</i> , 2014, 39, 467-469.	2.0	22
64	Unfolding the Mystery of Olfactory Receptor Gene Expression. <i>Developmental Cell</i> , 2013, 27, 128-129.	7.0	5
65	Functional Evolution of Mammalian Odorant Receptors. <i>PLoS Genetics</i> , 2012, 8, e1002821.	3.5	176
66	Genetic Variation in the Odorant Receptor OR2J3 Is Associated with the Ability to Detect the "Grassy" Smelling Odor, cis-3-hexen-1-ol. <i>Chemical Senses</i> , 2012, 37, 585-593.	2.0	110
67	Receptor-transporting Protein 1 Short (RTP1S) Mediates Translocation and Activation of Odorant Receptors by Acting through Multiple Steps. <i>Journal of Biological Chemistry</i> , 2012, 287, 22287-22294.	3.4	42
68	Crucial role of copper in detection of metal-coordinating odorants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 3492-3497.	7.1	104
69	Calreticulin chaperones regulate functional expression of vomeronasal type 2 pheromone receptors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 16651-16656.	7.1	56
70	G protein G α o is essential for vomeronasal function and aggressive behavior in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 12898-12903.	7.1	159
71	Activation State of the M3 Muscarinic Acetylcholine Receptor Modulates Mammalian Odorant Receptor Signaling. <i>Science Signaling</i> , 2011, 4, ra1.	3.6	67
72	Dynamic functional evolution of an odorant receptor for sex-steroid-derived odors in primates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 21247-21251.	7.1	42

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73	SR1, a Mouse Odorant Receptor with an Unusually Broad Response Profile. <i>Journal of Neuroscience</i> , 2009, 29, 14545-14552.	3.6	105
74	Trafficking of Mammalian Chemosensory Receptors by Receptor-Transporting Proteins. <i>Annals of the New York Academy of Sciences</i> , 2009, 1170, 153-156.	3.8	26
75	Odor Coding by a Mammalian Receptor Repertoire. <i>Science Signaling</i> , 2009, 2, ra9.	3.6	487
76	Evaluating cell-surface expression and measuring activation of mammalian odorant receptors in heterologous cells. <i>Nature Protocols</i> , 2008, 3, 1402-1413.	12.0	178
77	Synergism of Accessory Factors in Functional Expression of Mammalian Odorant Receptors. <i>Journal of Biological Chemistry</i> , 2007, 282, 15284-15293.	3.4	160
78	Genetic variation in a human odorant receptor alters odour perception. <i>Nature</i> , 2007, 449, 468-472.	27.8	549
79	Functional Expression of Mammalian Odorant Receptors. <i>Chemical Senses</i> , 2005, 30, i95-i96.	2.0	7
80	RTP Family Members Induce Functional Expression of Mammalian Odorant Receptors. <i>Cell</i> , 2004, 119, 679-691.	28.9	528
81	Taste perception: how to make a gourmet mouse. <i>Current Biology</i> , 2004, 14, R118-20.	3.9	2
82	Taste and pheromone perception in mammals and flies. <i>Genome Biology</i> , 2003, 4, 220.	9.6	42