

Robert W. Williams

List of Publications by Year in descending order

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Version: 2024-02-01

82
papers

13,345
citations

26567

56
h-index

64668

79
g-index

84
all docs

84
docs citations

84
times ranked

17757
citing authors

#	ARTICLE	IF	CITATIONS
1	The Collaborative Cross, a community resource for the genetic analysis of complex traits. <i>Nature Genetics</i> , 2004, 36, 1133-1137.	9.4	1,034
2	Mitonuclear protein imbalance as a conserved longevity mechanism. <i>Nature</i> , 2013, 497, 451-457.	13.7	846
3	Common genetic variants influence human subcortical brain structures. <i>Nature</i> , 2015, 520, 224-229.	13.7	772
4	Complex trait analysis of gene expression uncovers polygenic and pleiotropic networks that modulate nervous system function. <i>Nature Genetics</i> , 2005, 37, 233-242.	9.4	695
5	Interleukin 17-producing T helper cells and interleukin 17 orchestrate autoreactive germinal center development in autoimmune BXD2 mice. <i>Nature Immunology</i> , 2008, 9, 166-175.	7.0	639
6	Multi-omics analysis identifies ATF4 as a key regulator of the mitochondrial stress response in mammals. <i>Journal of Cell Biology</i> , 2017, 216, 2027-2045.	2.3	590
7	The Control of Neuron Number. <i>Annual Review of Neuroscience</i> , 1988, 11, 423-453.	5.0	527
8	Three-dimensional counting: An accurate and direct method to estimate numbers of cells in sectioned material. <i>Journal of Comparative Neurology</i> , 1988, 278, 344-352.	0.9	423
9	The nature and identification of quantitative trait loci: a community's view. <i>Nature Reviews Genetics</i> , 2003, 4, 911-916.	7.7	390
10	Uncovering regulatory pathways that affect hematopoietic stem cell function using 'genetical genomics'. <i>Nature Genetics</i> , 2005, 37, 225-232.	9.4	366
11	Ethanol-Responsive Brain Region Expression Networks: Implications for Behavioral Responses to Acute Ethanol in DBA/2J versus C57BL/6J Mice. <i>Journal of Neuroscience</i> , 2005, 25, 2255-2266.	1.7	251
12	WebQTL: Web-Based Complex Trait Analysis. <i>Neuroinformatics</i> , 2003, 1, 299-308.	1.5	249
13	The Collaborative Cross at Oak Ridge National Laboratory: developing a powerful resource for systems genetics. <i>Mammalian Genome</i> , 2008, 19, 382-389.	1.0	245
14	A High-Resolution Single Nucleotide Polymorphism Genetic Map of the Mouse Genome. <i>PLoS Biology</i> , 2006, 4, e395.	2.6	243
15	A novel cytoarchitectonic area induced experimentally within the primate visual cortex.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991, 88, 2083-2087.	3.3	242
16	Strain Differences in Stress Responsivity Are Associated with Divergent Amygdala Gene Expression and Glutamate-Mediated Neuronal Excitability. <i>Journal of Neuroscience</i> , 2010, 30, 5357-5367.	1.7	224
17	Systems Genetics of Metabolism: The Use of the BXD Murine Reference Panel for Multiscalar Integration of Traits. <i>Cell</i> , 2012, 150, 1287-1299.	13.5	212
18	Growth cones, dying axons, and developmental fluctuations in the fiber population of the cat's optic nerve. <i>Journal of Comparative Neurology</i> , 1986, 246, 32-69.	0.9	201

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19	Murine Gut Microbiota Is Defined by Host Genetics and Modulates Variation of Metabolic Traits. PLoS ONE, 2012, 7, e39191.	1.1	198
20	Genetic dissection of complex and quantitative traits: from fantasy to reality via a community effort. Mammalian Genome, 2002, 13, 175-178.	1.0	191
21	Metabolic Networks of Longevity. Cell, 2010, 142, 9-14.	13.5	190
22	The Neuroscience Information Framework: A Data and Knowledge Environment for Neuroscience. Neuroinformatics, 2008, 6, 149-160.	1.5	189
23	Natural variation and genetic covariance in adult hippocampal neurogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 780-785.	3.3	181
24	WebQTL: rapid exploratory analysis of gene expression and genetic networks for brain and behavior. Nature Neuroscience, 2004, 7, 485-486.	7.1	176
25	Metabolic Stress Modulates Alzheimer's β -Secretase Gene Transcription via SIRT1-PPAR γ -PGC-1 in Neurons. Cell Metabolism, 2013, 17, 685-694.	7.2	170
26	Host Genetic Variation Affects Resistance to Infection with a Highly Pathogenic H5N1 Influenza A Virus in Mice. Journal of Virology, 2009, 83, 10417-10426.	1.5	169
27	Measurement of Refractive State and Deprivation Myopia in Two Strains of Mice. Optometry and Vision Science, 2004, 81, 99-110.	0.6	164
28	Reproducibility and replicability of rodent phenotyping in preclinical studies. Neuroscience and Biobehavioral Reviews, 2018, 87, 218-232.	2.9	153
29	Photoreceptor mosaic: Number and distribution of rods and cones in the rhesus monkey retina. Journal of Comparative Neurology, 1990, 297, 499-508.	0.9	145
30	Elimination of neurons from the rhesus monkey's lateral geniculate nucleus during development. Journal of Comparative Neurology, 1988, 272, 424-436.	0.9	125
31	Variation in Mouse Basolateral Amygdala Volume is Associated With Differences in Stress Reactivity and Fear Learning. Neuropsychopharmacology, 2008, 33, 2595-2604.	2.8	123
32	Genetic Correlates of Gene Expression in Recombinant Inbred Strains: A Relational Model System to Explore Neurobehavioral Phenotypes. Neuroinformatics, 2003, 1, 343-358.	1.5	118
33	A platform for experimental precision medicine: The extended BXD mouse family. Cell Systems, 2021, 12, 235-247.e9.	2.9	115
34	Genetic Variation in the Social Environment Contributes to Health and Disease. PLoS Genetics, 2017, 13, e1006498.	1.5	110
35	High Susceptibility to Experimental Myopia in a Mouse Model with a Retinal ON Pathway Defect. , 2008, 49, 706.		106
36	Antisense transcription: A critical look in both directions. Cellular and Molecular Life Sciences, 2009, 66, 94-112.	2.4	104

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37	Formation of retinal ganglion cell topography during prenatal development. <i>Science</i> , 1987, 236, 848-851.	6.0	99
38	Dissection of a QTL Hotspot on Mouse Distal Chromosome 1 that Modulates Neurobehavioral Phenotypes and Gene Expression. <i>PLoS Genetics</i> , 2008, 4, e1000260.	1.5	98
39	Combined Expression Trait Correlations and Expression Quantitative Trait Locus Mapping. <i>PLoS Genetics</i> , 2006, 2, e6.	1.5	97
40	Genetic Dissection of Behavioral Flexibility: Reversal Learning in Mice. <i>Biological Psychiatry</i> , 2011, 69, 1109-1116.	0.7	97
41	Genetic structure of the LXS panel of recombinant inbred mouse strains: a powerful resource for complex trait analysis. <i>Mammalian Genome</i> , 2004, 15, 637-647.	1.0	95
42	Increased brain size and glial cell number in CD81-null mice. <i>Journal of Comparative Neurology</i> , 2002, 453, 22-32.	0.9	87
43	Target recognition and visual maps in the thalamus of achiasmatic dogs. <i>Nature</i> , 1994, 367, 637-639.	13.7	84
44	Fine-Scale Maps of Recombination Rates and Hotspots in the Mouse Genome. <i>Genetics</i> , 2012, 191, 757-764.	1.2	82
45	Alcohol trait and transcriptional genomic analysis of C57BL/6 substrains. <i>Genes, Brain and Behavior</i> , 2008, 7, 677-689.	1.1	81
46	The p47 GTPases <i>ligp2</i> and <i>Irgb10</i> Regulate Innate Immunity and Inflammation to Murine <i>Chlamydia psittaci</i> Infection. <i>Journal of Immunology</i> , 2007, 179, 1814-1824.	0.4	79
47	QTL analysis and genomewide mutagenesis in mice: complementary genetic approaches to the dissection of complex traits. <i>Behavior Genetics</i> , 2001, 31, 5-15.	1.4	78
48	Towards Effective and Rewarding Data Sharing. <i>Neuroinformatics</i> , 2003, 1, 289-296.	1.5	78
49	Functionally Enigmatic Genes: A Case Study of the Brain Ignorome. <i>PLoS ONE</i> , 2014, 9, e88889.	1.1	77
50	Inferring gene transcriptional modulatory relations: a genetical genomics approach. <i>Human Molecular Genetics</i> , 2005, 14, 1119-1125.	1.4	76
51	Quantitative Trait Locus Analysis Using Recombinant Inbred Intercrosses. <i>Genetics</i> , 2005, 170, 1299-1311.	1.2	75
52	Dispersion of growing axons within the optic nerve of the embryonic monkey.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1985, 82, 3906-3910.	3.3	73
53	Genetic architecture of the mouse hippocampus: identification of gene loci with selective regional effects. <i>Genes, Brain and Behavior</i> , 2003, 2, 238-252.	1.1	72
54	The Diasporin Pathway: a tumor progression-related transcriptional network that predicts breast cancer survival. <i>Clinical and Experimental Metastasis</i> , 2008, 25, 357-369.	1.7	70

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55	A strategy for the integration of QTL, gene expression, and sequence analyses. <i>Mammalian Genome</i> , 2003, 14, 733-747.	1.0	69
56	A promoter polymorphism in the Per3 gene is associated with alcohol and stress response. <i>Translational Psychiatry</i> , 2012, 2, e73-e73.	2.4	63
57	Detection, Validation, and Downstream Analysis of Allelic Variation in Gene Expression. <i>Genetics</i> , 2010, 184, 119-128.	1.2	60
58	Genetic Segregation of Spontaneous Erosive Arthritis and Generalized Autoimmune Disease in the BXD2 Recombinant Inbred Strain of Mice. <i>Scandinavian Journal of Immunology</i> , 2005, 61, 128-138.	1.3	59
59	How replicable are mRNA expression QTL?. <i>Mammalian Genome</i> , 2006, 17, 643-656.	1.0	56
60	Genetic control of retinal projections in inbred strains of albino mice. <i>Journal of Comparative Neurology</i> , 1995, 354, 459-469.	0.9	53
61	Structure of clonal and polyclonal cell arrays in chimeric mouse retina.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1992, 89, 1184-1188.	3.3	52
62	GeneNetwork: framework for web-based genetics. <i>Journal of Open Source Software</i> , 2016, 1, 25.	2.0	51
63	Genome-level analysis of genetic regulation of liver gene expression networks. <i>Hepatology</i> , 2007, 46, 548-557.	3.6	49
64	Lineage versus environment in embryonic retina: a revisionist perspective. <i>Trends in Neurosciences</i> , 1992, 15, 368-373.	4.2	48
65	Exploiting regulatory variation to identify genes underlying quantitative resistance to the wheat stem rust pathogen <i>Puccinia graminis f. sp. tritici</i> in barley. <i>Theoretical and Applied Genetics</i> , 2008, 117, 261-272.	1.8	43
66	Orbitofrontal Neuroadaptations and Cross-Species Synaptic Biomarkers in Heavy-Drinking Macaques. <i>Journal of Neuroscience</i> , 2017, 37, 3646-3660.	1.7	43
67	Resources for Systems Genetics. <i>Methods in Molecular Biology</i> , 2017, 1488, 3-29.	0.4	42
68	Genetic variation of the cutaneous HPA axis: An analysis of UVB-induced differential responses. <i>Gene</i> , 2013, 530, 1-7.	1.0	36
69	Variability and heritability of mouse brain structure: Microscopic MRI atlases and connectomes for diverse strains. <i>NeuroImage</i> , 2020, 222, 117274.	2.1	33
70	Genetic cartography of longevity in humans and mice: Current landscape and horizons. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2018, 1864, 2718-2732.	1.8	27
71	Gene-by-environment modulation of lifespan and weight gain in the murine BXD family. <i>Nature Metabolism</i> , 2021, 3, 1217-1227.	5.1	27
72	Genetics of Gene Expression in CNS. <i>International Review of Neurobiology</i> , 2014, 116, 195-231.	0.9	26

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73	Highlights from the Era of Open Source Web-Based Tools. <i>Journal of Neuroscience</i> , 2021, 41, 927-936.	1.7	19
74	Genetic and Molecular Network Analysis of Behavior. <i>International Review of Neurobiology</i> , 2012, 104, 135-157.	0.9	17
75	Post-genomic behavioral genetics: From revolution to routine. <i>Genes, Brain and Behavior</i> , 2018, 17, e12441.	1.1	17
76	The genome sequence of the Norway rat, <i>Rattus norvegicus</i> Berkenhout 1769. <i>Wellcome Open Research</i> , 2021, 6, 118.	0.9	16
77	Identifying the molecular systems that influence cognitive resilience to Alzheimer's disease in genetically diverse mice. <i>Learning and Memory</i> , 2020, 27, 355-371.	0.5	15
78	GeneCup: mining PubMed and GWAS catalog for gene-keyword relationships. <i>G3: Genes, Genomes, Genetics</i> , 2022, 12, .	0.8	8
79	Correlation Trait Loci (CTL) mapping: phenotype network inference subject to genotype. <i>Journal of Open Source Software</i> , 2016, 1, 87.	2.0	3
80	Systems genetics in the rat HXB/BXH family identifies <i>Tti2</i> as a pleiotropic quantitative trait gene for adult hippocampal neurogenesis and serum glucose. <i>PLoS Genetics</i> , 2022, 18, e1009638.	1.5	3
81	Speeding up eQTL scans in the BXD population using GPUs. <i>G3: Genes, Genomes, Genetics</i> , 2021, 11, .	0.8	2
82	Preface to a special issue on genetic models of alcoholism and alcohol-stress interactions. <i>Alcohol</i> , 2017, 58, 23-24.	0.8	1