

Patrick M Nolan

List of Publications by Year in descending order

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98
papers

8,290
citations

61945

43
h-index

48277

88
g-index

103
all docs

103
docs citations

103
times ranked

11857
citing authors

#	ARTICLE	IF	CITATIONS
1	A systematic, genome-wide, phenotype-driven mutagenesis programme for gene function studies in the mouse. <i>Nature Genetics</i> , 2000, 25, 440-443.	9.4	657
2	Overexpression of Fto leads to increased food intake and results in obesity. <i>Nature Genetics</i> , 2010, 42, 1086-1092.	9.4	612
3	Mutation of Celsr1 Disrupts Planar Polarity of Inner Ear Hair Cells and Causes Severe Neural Tube Defects in the Mouse. <i>Current Biology</i> , 2003, 13, 1129-1133.	1.8	552
4	SCFFbx13 Controls the Oscillation of the Circadian Clock by Directing the Degradation of Cryptochrome Proteins. <i>Science</i> , 2007, 316, 900-904.	6.0	445
5	The After-Hours Mutant Reveals a Role for Fbx13 in Determining Mammalian Circadian Period. <i>Science</i> , 2007, 316, 897-900.	6.0	434
6	Mutations in β -Tubulin Cause Abnormal Neuronal Migration in Mice and Lissencephaly in Humans. <i>Cell</i> , 2007, 128, 45-57.	13.5	397
7	Social jetlag, obesity and metabolic disorder: investigation in a cohort study. <i>International Journal of Obesity</i> , 2015, 39, 842-848.	1.6	332
8	Impaired Synaptic Plasticity and Motor Learning in Mice with a Point Mutation Implicated in Human Speech Deficits. <i>Current Biology</i> , 2008, 18, 354-362.	1.8	304
9	Reliability, robustness, and reproducibility in mouse behavioral phenotyping: a cross-laboratory study. <i>Physiological Genomics</i> , 2008, 34, 243-255.	1.0	229
10	Clusterin regulates β -amyloid toxicity via Dickkopf-1-driven induction of the wnt/PCP/JNK pathway. <i>Molecular Psychiatry</i> , 2014, 19, 88-98.	4.1	197
11	A point mutation in TRPC3 causes abnormal Purkinje cell development and cerebellar ataxia in moonwalker mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6706-6711.	3.3	187
12	Intraventricular Infusions of Anti-Neural Cell Adhesion Molecules in a Discrete Posttraining Period Impair Consolidation of a Passive Avoidance Response in the Rat. <i>Journal of Neurochemistry</i> , 1992, 59, 1570-1573.	2.1	173
13	When Clocks Go Bad: Neurobehavioural Consequences of Disrupted Circadian Timing. <i>PLoS Genetics</i> , 2008, 4, e1000040.	1.5	155
14	Hippocampal NCAM180 transiently increases sialylation during the acquisition and consolidation of a passive avoidance response in the adult rat. <i>Journal of Neuroscience Research</i> , 1992, 31, 513-523.	1.3	141
15	Analysis of mammalian gene function through broad-based phenotypic screens across a consortium of mouse clinics. <i>Nature Genetics</i> , 2015, 47, 969-978.	9.4	137
16	Melanopsin Regulates Both Sleep-Promoting and Arousal-Promoting Responses to Light. <i>PLoS Biology</i> , 2016, 14, e1002482.	2.6	129
17	Assessing mouse behaviour throughout the light/dark cycle using automated in-cage analysis tools. <i>Journal of Neuroscience Methods</i> , 2018, 300, 37-47.	1.3	128
18	Novel ENU-induced eye mutations in the mouse: models for human eye disease. <i>Human Molecular Genetics</i> , 2002, 11, 755-767.	1.4	126

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19	Mouse mutagenesis-systematic studies of mammalian gene function. <i>Human Molecular Genetics</i> , 1998, 7, 1627-1633.	1.4	114
20	Dominant β -catenin mutations cause intellectual disability with recognizable syndromic features. <i>Journal of Clinical Investigation</i> , 2014, 124, 1468-1482.	3.9	110
21	Implementation of a large-scale ENU mutagenesis program: towards increasing the mouse mutant resource. <i>Mammalian Genome</i> , 2000, 11, 500-506.	1.0	109
22	A retroviral Gene Trap Insertion into the Histone 3.3A Gene Causes Partial Neonatal Lethality, Stunted Growth, Neuromuscular Deficits and Male Sub-fertility in Transgenic Mice. <i>Human Molecular Genetics</i> , 1999, 8, 2489-2495.	1.4	103
23	Mutations in Rab3a alter circadian period and homeostatic response to sleep loss in the mouse. <i>Nature Genetics</i> , 2002, 32, 290-295.	9.4	91
24	An ENU-induced mutation in mouse glycyl-tRNA synthetase (GARS) causes peripheral sensory and motor phenotypes creating a model of Charcot-Marie-Tooth type 2D peripheral neuropathy. <i>DMM Disease Models and Mechanisms</i> , 2009, 2, 359-373.	1.2	91
25	Analysis of Individual Mouse Activity in Group Housed Animals of Different Inbred Strains using a Novel Automated Home Cage Analysis System. <i>Frontiers in Behavioral Neuroscience</i> , 2016, 10, 106.	1.0	87
26	Novel gene function revealed by mouse mutagenesis screens for models of age-related disease. <i>Nature Communications</i> , 2016, 7, 12444.	5.8	79
27	The Regulatory Factor ZFH3 Modifies Circadian Function in SCN via an AT Motif-Driven Axis. <i>Cell</i> , 2015, 162, 607-621.	13.5	74
28	Mutations in Gasdermin 3 Cause Aberrant Differentiation of the Hair Follicle and Sebaceous Gland. <i>Journal of Investigative Dermatology</i> , 2005, 124, 615-621.	0.3	68
29	A Mutation in <i>Af4</i> Is Predicted to Cause Cerebellar Ataxia and Cataracts in the Robotic Mouse. <i>Journal of Neuroscience</i> , 2003, 23, 1631-1637.	1.7	66
30	Random Mutagenesis Screen for Dominant Behavioral Mutations in Mice. <i>Methods</i> , 1997, 13, 379-395.	1.9	64
31	Reciprocal interactions between circadian clocks and aging. <i>Mammalian Genome</i> , 2016, 27, 332-340.	1.0	64
32	Novel phenotypes identified by plasma biochemical screening in the mouse. <i>Mammalian Genome</i> , 2002, 13, 595-602.	1.0	62
33	KATNAL1 Regulation of Sertoli Cell Microtubule Dynamics Is Essential for Spermiogenesis and Male Fertility. <i>PLoS Genetics</i> , 2012, 8, e1002697.	1.5	62
34	Genetic background influences age-related decline in visual and nonvisual retinal responses, circadian rhythms, and sleep. <i>Neurobiology of Aging</i> , 2015, 36, 380-393.	1.5	61
35	Replication of Genome-wide association studies (GWAS) loci for sleep in the British G1219 cohort. <i>American Journal of Medical Genetics Part B: Neuropsychiatric Genetics</i> , 2013, 162, 431-438.	1.1	57
36	Identification of two new Pmp22 mouse mutants using large-scale mutagenesis and a novel rapid mapping strategy. <i>Human Molecular Genetics</i> , 2000, 9, 1865-1871.	1.4	56

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37	A comparison of physiological and behavioural parameters in C57BL/6J mice undergoing food or water restriction regimes. <i>Behavioural Brain Research</i> , 2006, 173, 22-29.	1.2	56
38	Distinct and Separable Roles for Endogenous CRY1 and CRY2 within the Circadian Molecular Clockwork of the Suprachiasmatic Nucleus, as Revealed by the <i>Fbxl3^{Afh}</i> Mutation. <i>Journal of Neuroscience</i> , 2013, 33, 7145-7153.	1.7	56
39	Reduced Anxiety and Depression-Like Behaviours in the Circadian Period Mutant Mouse <i>Afterhours</i> . <i>PLoS ONE</i> , 2012, 7, e38263.	1.1	54
40	Genetic and Molecular Analysis of the Central and Peripheral Circadian Clockwork of Mice. <i>Cold Spring Harbor Symposia on Quantitative Biology</i> , 2007, 72, 85-94.	2.0	52
41	A novel SOD1-ALS mutation separates central and peripheral effects of mutant SOD1 toxicity. <i>Human Molecular Genetics</i> , 2015, 24, 1883-1897.	1.4	52
42	Stringent requirement of a proper level of canonical WNT signalling activity for head formation in mouse embryo. <i>Development (Cambridge)</i> , 2011, 138, 667-676.	1.2	50
43	ENU mutagenesis reveals a highly mutable locus on mouse Chromosome 4 that affects ear morphogenesis. <i>Mammalian Genome</i> , 2002, 13, 142-148.	1.0	45
44	Polymorphisms in the circadian expressed genes <i>PER3</i> and <i>ARNTL2</i> are associated with diurnal preference and <i>GNÎ²3</i> with sleep measures. <i>Journal of Sleep Research</i> , 2014, 23, 595-604.	1.7	45
45	Gene-environment interactions differentially affect mouse strain behavioral parameters. <i>Mammalian Genome</i> , 2006, 17, 1113-1120.	1.0	42
46	Tuning the Period of the Mammalian Circadian Clock: Additive and Independent Effects of <i>CK1Îµ^{Tau}</i> and <i>Fbxl3^{Afh}</i> Mutations on Mouse Circadian Behavior and Molecular Pacemaking. <i>Journal of Neuroscience</i> , 2011, 31, 1539-1544.	1.7	42
47	A twin and molecular genetics study of sleep paralysis and associated factors. <i>Journal of Sleep Research</i> , 2015, 24, 438-446.	1.7	42
48	Loss-of-Function Mutations in <i>FRRS1L</i> Lead to an Epileptic-Dyskinetic Encephalopathy. <i>American Journal of Human Genetics</i> , 2016, 98, 1249-1255.	2.6	40
49	Towards new models of disease and physiology in the neurosciences: the role of induced and naturally occurring mutations. <i>Human Molecular Genetics</i> , 2000, 9, 893-900.	1.4	38
50	Screening for novel ENU-induced rhythm, entrainment and activity mutants. <i>Genes, Brain and Behavior</i> , 2004, 3, 196-205.	1.1	37
51	Mutagenesis and behavioral screening for altered circadian activity identifies the mouse mutant, <i>Wheels</i> . <i>Brain Research</i> , 1995, 705, 255-266.	1.1	36
52	Running endurance abnormality in <i>mdx</i> mice. <i>Muscle and Nerve</i> , 2002, 25, 207-211.	1.0	35
53	Novel Mouse Model of Autosomal Semidominant Adult Hypophosphatasia Has a Splice Site Mutation in the Tissue Nonspecific Alkaline Phosphatase Gene <i>Akp2</i> . <i>Journal of Bone and Mineral Research</i> , 2007, 22, 1397-1407.	3.1	34
54	Inducible Knockout of Mouse <i>Zfhx3</i> Emphasizes Its Key Role in Setting the Pace and Amplitude of the Adult Circadian Clock. <i>Journal of Biological Rhythms</i> , 2017, 32, 433-443.	1.4	34

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55	The Wheels Mutation in the Mouse Causes Vascular, Hindbrain, and Inner Ear Defects. <i>Developmental Biology</i> , 2001, 234, 244-260.	0.9	33
56	Early motor deficits in mouse disease models are reliably uncovered using an automated home cage wheel-running system: a cross-laboratory validation. <i>DMM Disease Models and Mechanisms</i> , 2014, 7, 397-407.	1.2	33
57	The Zfhx3-Mediated Axis Regulates Sleep and Interval Timing in Mice. <i>Cell Reports</i> , 2016, 16, 615-621.	2.9	33
58	ENU mutagenesis in the mouse: Application to human genetic disease. <i>Briefings in Functional Genomics & Proteomics</i> , 2002, 1, 278-289.	3.8	32
59	Defining the Cause of Skewed X-Chromosome Inactivation in X-Linked Mental Retardation by Use of a Mouse Model. <i>American Journal of Human Genetics</i> , 2007, 80, 1138-1149.	2.6	32
60	Comparative mapping of 9 human chromosome 22q loci in the laboratory mouse. <i>Human Molecular Genetics</i> , 1993, 2, 1245-1252.	1.4	31
61	Meta-analysis of transcriptomic datasets identifies genes enriched in the mammalian circadian pacemaker. <i>Nucleic Acids Research</i> , 2017, 45, 9860-9873.	6.5	29
62	Dissecting the genetic complexity of human 6p deletion syndromes by using a region-specific, phenotype-driven mouse screen. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 12477-12482.	3.3	28
63	A missense mutation in <i>Katnal1</i> underlies behavioural, neurological and ciliary anomalies. <i>Molecular Psychiatry</i> , 2018, 23, 713-722.	4.1	28
64	New semidominant mutations that affect mouse development. <i>Genesis</i> , 2004, 40, 109-117.	0.8	26
65	The role of mutagenesis in defining genes in behaviour. <i>European Journal of Human Genetics</i> , 2006, 14, 651-659.	1.4	25
66	Phenotyping first-generation genome editing mutants: a new standard?. <i>Mammalian Genome</i> , 2017, 28, 377-382.	1.0	23
67	A Cross-Laboratory Investigation of Timing Endophenotypes in Mouse Behavior. <i>Timing and Time Perception</i> , 2014, 2, 35-50.	0.4	22
68	Loss of <i>Frrs11</i> disrupts synaptic AMPA receptor function, and results in neurodevelopmental, motor, cognitive and electrographical abnormalities. <i>DMM Disease Models and Mechanisms</i> , 2019, 12, .	1.2	22
69	Informatics for mutagenesis: the design of Mutabase—a distributed data recording system for animal husbandry, mutagenesis, and phenotypic analysis. <i>Mammalian Genome</i> , 2000, 11, 577-583.	1.0	20
70	Differential roles for cryptochromes in the mammalian retinal clock. <i>FASEB Journal</i> , 2018, 32, 4302-4314.	0.2	20
71	Neurodevelopmental events underlying information acquisition and storage. <i>Network: Computation in Neural Systems</i> , 1992, 3, 89-94.	2.2	19
72	N-ethyl-N-nitrosourea mouse mutants in the dissection of behavioural and psychiatric disorders. <i>European Journal of Pharmacology</i> , 2003, 480, 205-217.	1.7	19

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73	Reaching and grasping phenotypes in the mouse (<i>Mus musculus</i>): A characterization of inbred strains and mutant lines. <i>Neuroscience</i> , 2007, 147, 573-582.	1.1	19
74	Early doors (<i>Edo</i>) mutant mouse reveals the importance of period 2 (PER2) PAS domain structure for circadian pacemaking. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 2756-2761.	3.3	19
75	Assessment of Circadian and Light-Entrainable Parameters in Mice Using Wheel-Running Activity. <i>Current Protocols in Mouse Biology</i> , 2011, 1, 369-381.	1.2	19
76	Generation of mouse mutants as a tool for functional genomics. <i>Pharmacogenomics</i> , 2000, 1, 243-255.	0.6	17
77	Towards a mutant map of the mouse ? new models of neurological, behavioural, deafness, bone, renal and blood disorders. <i>Genetica</i> , 2004, 122, 47-49.	0.5	17
78	Comprehensive phenotypic analysis of the Dp1Tyb mouse strain reveals a broad range of Down syndrome-related phenotypes. <i>DMM Disease Models and Mechanisms</i> , 2021, 14, .	1.2	17
79	Learning-induced change in neural activity during acquisition and consolidation of a passive avoidance response in the rat. <i>Neurochemical Research</i> , 1990, 15, 551-558.	1.6	16
80	Acquisition of a brief behavioral experience in the presence of neuron-specific and D2-CAM/N-CAM-specific antisera. <i>Neurochemical Research</i> , 1987, 12, 619-624.	1.6	15
81	Sleep-like behavior and 24-h rhythm disruption in the Tc1 mouse model of Down syndrome. <i>Genes, Brain and Behavior</i> , 2015, 14, 209-216.	1.1	15
82	Disruption of the homeodomain transcription factor orthopedia homeobox (<i>Otp</i>) is associated with obesity and anxiety. <i>Molecular Metabolism</i> , 2017, 6, 1419-1428.	3.0	15
83	Forward genetics identifies a novel sleep mutant with sleep state inertia and REM sleep deficits. <i>Science Advances</i> , 2020, 6, eabb3567.	4.7	15
84	Acquisition of a brief behavioural experience in the rat is inhibited by the brain-specific monoclonal antibody, F3-87-8. <i>Neuroscience Letters</i> , 1987, 79, 346-350.	1.0	11
85	Phenotyping in Mice Using Continuous Home Cage Monitoring and Ultrasonic Vocalization Recordings. <i>Current Protocols in Mouse Biology</i> , 2020, 10, e80.	1.2	11
86	The guanine nucleotide exchange factor, <i>Spata13</i> , influences social behaviour and nocturnal activity. <i>Mammalian Genome</i> , 2019, 30, 54-62.	1.0	8
87	Clocks go forward: progress in the molecular genetic analysis of rhythmic behaviour. <i>Mammalian Genome</i> , 2009, 20, 67-70.	1.0	7
88	Cognitive assessment of mice strains heterozygous for cell-adhesion genes reveals strain-specific alterations in timing. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20120464.	1.8	7
89	The after-hours circadian mutant has reduced phenotypic plasticity in behaviors at multiple timescales and in sleep homeostasis. <i>Scientific Reports</i> , 2017, 7, 17765.	1.6	7
90	Zfhx3-mediated genetic ablation of the SCN abolishes light entrainable circadian activity while sparing food anticipatory activity. <i>IScience</i> , 2021, 24, 103142.	1.9	7

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91	Dibutyl cyclic AMP stimulates expression of ependymin mRNA and the synthesis and release of the protein into the culture medium by neuroblastoma cells (NB2a/d1). <i>Journal of Neuroscience Research</i> , 1992, 32, 239-244.	1.3	6
92	Simultaneous Assessment of Circadian Rhythms and Sleep in Mice Using Passive Infrared Sensors: A User's Guide. <i>Current Protocols in Mouse Biology</i> , 2020, 10, e81.	1.2	5
93	<i>Zfh3</i> modulates retinal sensitivity and circadian responses to light. <i>FASEB Journal</i> , 2021, 35, e21802.	0.2	5
94	Soluble rat brain sialidase does not influence intracellular glycosylation of Golgi sialyltransferase or its constitutive glycoproteins. <i>Neuroscience Letters</i> , 1988, 88, 308-312.	1.0	3
95	Behavioral and Neurological Phenotyping in the Mouse. , 0, , 135-175.		3
96	Three Novel Pigmentation Mutants Generated by Genome-Wide Random ENU Mutagenesis in the Mouse. <i>Comparative and Functional Genomics</i> , 2004, 5, 123-127.	2.0	2
97	Toward an understanding of the function of sleep: New insights from mouse genetics. , 2001, , 218-237.		1
98	Generation of mouse mutants as tools in dissecting the molecular clock. <i>Progress in Brain Research</i> , 2012, 199, 247-265.	0.9	1