Joseph S Takahashi

List of Publications by Citations

297 papers	52,294 citations	105 h-index	227 g-index
326 ext. papers	58,949 ext. citations	14 avg, IF	7.84 L-index

#	Paper	IF	Citations
297	Obesity and metabolic syndrome in circadian Clock mutant mice. *Science*, **2005**, 308, 1043-5	33.3	1846
296	Coordinated transcription of key pathways in the mouse by the circadian clock. *Cell*, **2002**, 109, 307-20	56.2	1831
295	PERIOD2::LUCIFERASE real-time reporting of circadian dynamics reveals persistent circadian oscillations in mouse peripheral tissues. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 5339-46	11.5	1722
294	Role of the CLOCK protein in the mammalian circadian mechanism. *Science*, **1998**, 280, 1564-9	33.3	1539
293	Central and peripheral circadian clocks in mammals. *Annual Review of Neuroscience*, **2012**, 35, 445-62	17	1319
292	Mutagenesis and mapping of a mouse gene, Clock, essential for circadian behavior. *Science*, **1994**, 264, 719-25	33.3	1319
291	Circadian integration of metabolism and energetics. *Science*, **2010**, 330, 1349-54	33.3	1253
290	Mop3 is an essential component of the master circadian pacemaker in mammals. *Cell*, **2000**, 103, 1009-17	56.2	1157
289	Positional cloning of the mouse circadian clock gene. *Cell*, **1997**, 89, 641-53	56.2	1144
288	Molecular components of the mammalian circadian clock. *Human Molecular Genetics*, **2006**, 15 Spec No 2, R271-7	5.6	1142
287	The genetics of mammalian circadian order and disorder: implications for physiology and disease. *Nature Reviews Genetics*, **2008**, 9, 764-75	30.1	1141
286	Disruption of the clock components CLOCK and BMAL1 leads to hypoinsulinaemia and diabetes. *Nature*, **2010**, 466, 627-31	50.4	1019
285	Transcriptional architecture of the mammalian circadian clock. *Nature Reviews Genetics*, **2017**, 18, 164-179	30.1	989
284	Transcriptional architecture and chromatin landscape of the core circadian clock in mammals. *Science*, **2012**, 338, 349-54	33.3	931
283	Circadian clock feedback cycle through NAMPT-mediated NAD+ biosynthesis. *Science*, **2009**, 324, 651-4	33.3	846
282	Suprachiasmatic nucleus: cell autonomy and network properties. *Annual Review of Physiology*, **2010**, 72, 551-77	23.1	840
281	Molecular architecture of the mammalian circadian clock. *Trends in Cell Biology*, **2014**, 24, 90-9	18.3	788

280	Regulation of CREB phosphorylation in the suprachiasmatic nucleus by light and a circadian clock. *Science*, **1993**, 260, 238-41	33.3	755
279	Mammalian circadian biology: elucidating genome-wide levels of temporal organization. *Annual Review of Genomics and Human Genetics*, **2004**, 5, 407-41	9.7	732
278	The meter of metabolism. *Cell*, **2008**, 134, 728-42	56.2	718
277	Positional syntenic cloning and functional characterization of the mammalian circadian mutation tau. *Science*, **2000**, 288, 483-92	33.3	712
276	Closing the circadian loop: CLOCK-induced transcription of its own inhibitors per and tim. *Science*, **1998**, 280, 1599-603	33.3	702
275	Mania-like behavior induced by disruption of CLOCK. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 6406-11	11.5	619
274	Temperature as a universal resetting cue for mammalian circadian oscillators. *Science*, **2010**, 330, 379-85	33.3	591
273	Intercellular coupling confers robustness against mutations in the SCN circadian clock network. *Cell* , **2007**, 129, 605-16	56.2	584
272	Functional identification of the mouse circadian Clock gene by transgenic BAC rescue. *Cell*, **1997**, 89, 655-67	56.2	583
271	Differential regulation of mammalian period genes and circadian rhythmicity by cryptochromes 1 and 2. *Proceedings of the National Academy of Sciences of the United States of America*, **1999**, 96, 12114-9	11.5	548
270	Bioluminescence imaging of individual fibroblasts reveals persistent, independently phased circadian rhythms of clock gene expression. *Current Biology*, **2004**, 14, 2289-95	6.3	544
269	System-driven and oscillator-dependent circadian transcription in mice with a conditionally active liver clock. *PLoS Biology*, **2007**, 5, e34	9.7	508
268	Regulation of circadian behaviour and metabolism by synthetic REV-ERB agonists. *Nature*, **2012**, 485, 62-8	50.4	493
267	A CLOCK polymorphism associated with human diurnal preference. *Sleep*, **1998**, 21, 569-76	1.1	484
266	Spectral sensitivity of a novel photoreceptive system mediating entrainment of mammalian circadian rhythms. *Nature*, **1984**, 308, 186-8	50.4	484
265	Photic and circadian regulation of c-fos gene expression in the hamster suprachiasmatic nucleus. *Neuron*, **1990**, 5, 127-34	13.9	474
264	Molecular genetics of circadian rhythms in mammals. *Annual Review of Neuroscience*, **2000**, 23, 713-42	17	436
263	Molecular components of the Mammalian circadian clock. *Handbook of Experimental Pharmacology*, **2013**, 3-27	3.2	428

262	Circadian mutant Overtime reveals F-box protein FBXL3 regulation of cryptochrome and period gene expression. *Cell*, **2007**, 129, 1011-23	56.2	420
261	Regulation of dopaminergic transmission and cocaine reward by the Clock gene. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 9377-81	11.5	393
260	Circadian and CLOCK-controlled regulation of the mouse transcriptome and cell proliferation. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 3342-7	11.5	389
259	Genetics of circadian rhythms in Mammalian model organisms. *Advances in Genetics*, **2011**, 74, 175-230	3.3	384
258	FGF21 regulates metabolism and circadian behavior by acting on the nervous system. *Nature Medicine*, **2013**, 19, 1147-52	50.5	333
257	cAMP-dependent signaling as a core component of the mammalian circadian pacemaker. *Science*, **2008**, 320, 949-53	33.3	328
256	Role of mouse cryptochrome blue-light photoreceptor in circadian photoresponses. *Science*, **1998**, 282, 1490-4	33.3	320
255	Clock controls circadian period in isolated suprachiasmatic nucleus neurons. *Nature Neuroscience*, **1998**, 1, 708-13	25.5	316
254	The circadian clock mutation alters sleep homeostasis in the mouse. *Journal of Neuroscience*, **2000**, 20, 8138-43	6.6	315
253	Setting clock speed in mammals: the CK1 epsilon tau mutation in mice accelerates circadian pacemakers by selectively destabilizing PERIOD proteins. *Neuron*, **2008**, 58, 78-88	13.9	301
252	Mammalian circadian autoregulatory loop: a timeless ortholog and mPer1 interact and negatively regulate CLOCK-BMAL1-induced transcription. *Neuron*, **1998**, 21, 1101-13	13.9	300
251	Circadian clock mutation disrupts estrous cyclicity and maintenance of pregnancy. *Current Biology*, **2004**, 14, 1367-73	6.3	263
250	Regulation of circadian rhythmicity. *Science*, **1982**, 217, 1104-11	33.3	258
249	Stopping time: the genetics of fly and mouse circadian clocks. *Annual Review of Neuroscience*, **2001**, 24, 1091-119	17	257
248	Sensitivity and integration in a visual pathway for circadian entrainment in the hamster (Mesocricetus auratus). *Journal of Physiology*, **1991**, 439, 115-45	3.9	257
247	TH17 cell differentiation is regulated by the circadian clock. *Science*, **2013**, 342, 727-30	33.3	255
246	Identification of the circadian transcriptome in adult mouse skeletal muscle. *Physiological Genomics*, **2007**, 31, 86-95	3.6	254
245	The Small Molecule Nobiletin Targets the Molecular Oscillator to Enhance Circadian Rhythms and Protect against Metabolic Syndrome. *Cell Metabolism*, **2016**, 23, 610-21	24.6	251

244	A noncanonical E-box enhancer drives mouse Period2 circadian oscillations in vivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 2608-13	11.5	242
243	Genetics of the mammalian circadian system: Photic entrainment, circadian pacemaker mechanisms, and posttranslational regulation. *Annual Review of Genetics*, **2000**, 34, 533-562	14.5	239
242	Dissecting the functions of the mammalian clock protein BMAL1 by tissue-specific rescue in mice. *Science*, **2006**, 314, 1304-8	33.3	237
241	CLOCK and BMAL1 regulate MyoD and are necessary for maintenance of skeletal muscle phenotype and function. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 19090-5	11.5	234
240	Competing E3 ubiquitin ligases govern circadian periodicity by degradation of CRY in nucleus and cytoplasm. *Cell*, **2013**, 152, 1091-105	56.2	224
239	Regulation of jun-B messenger RNA and AP-1 activity by light and a circadian clock. *Science*, **1992**, 255, 1581-4	33.3	204
238	Circadian rhythms of melatonin release from individual superfused chicken pineal glands in vitro. *Proceedings of the National Academy of Sciences of the United States of America*, **1980**, 77, 2319-22	11.5	202
237	Circadian sensitivity to the chemotherapeutic agent cyclophosphamide depends on the functional status of the CLOCK/BMAL1 transactivation complex. *Proceedings of the National Academy of Sciences of the United States of America*, **2005**, 102, 3407-12	11.5	201
236	Forward and reverse genetic approaches to behavior in the mouse. *Science*, **1994**, 264, 1724-33	33.3	200
235	CKIepsilon/delta-dependent phosphorylation is a temperature-insensitive, period-determining process in the mammalian circadian clock. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 15744-9	11.5	199
234	Crystal structure of the heterodimeric CLOCK:BMAL1 transcriptional activator complex. *Science*, **2012**, 337, 189-94	33.3	198
233	BK calcium-activated potassium channels regulate circadian behavioral rhythms and pacemaker output. *Nature Neuroscience*, **2006**, 9, 1041-9	25.5	194
232	Genome-wide epistatic interaction analysis reveals complex genetic determinants of circadian behavior in mice. *Genome Research*, **2001**, 11, 959-80	9.7	189
231	Circadian rhythm generation and entrainment in astrocytes. *Journal of Neuroscience*, **2005**, 25, 404-8	6.6	188
230	The mouse Clock mutation reduces circadian pacemaker amplitude and enhances efficacy of resetting stimuli and phase-response curve amplitude. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 9327-32	11.5	185
229	Targeted deletion of the Vgf gene indicates that the encoded secretory peptide precursor plays a novel role in the regulation of energy balance. *Neuron*, **1999**, 23, 537-48	13.9	181
228	Use of 2-[125I]iodomelatonin to characterize melatonin binding sites in chicken retina. *Proceedings of the National Academy of Sciences of the United States of America*, **1987**, 84, 3916-20	11.5	179
227	Cell autonomy and synchrony of suprachiasmatic nucleus circadian oscillators. *Trends in Neurosciences*, **2011**, 34, 349-58	13.3	175

226	Brain and muscle Arnt-like protein-1 (BMAL1) controls circadian cell proliferation and susceptibility to UVB-induced DNA damage in the epidermis. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 11758-63	11.5	165
225	Identification of diverse modulators of central and peripheral circadian clocks by high-throughput chemical screening. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 101-6	11.5	162
224	Rhythmic PER abundance defines a critical nodal point for negative feedback within the circadian clock mechanism. *Molecular Cell*, **2009**, 36, 417-30	17.6	160
223	Circadian regulation of iodopsin gene expression in embryonic photoreceptors in retinal cell culture. *Neuron*, **1993**, 10, 579-84	13.9	158
222	Time- and exercise-dependent gene regulation in human skeletal muscle. *Genome Biology*, **2003**, 4, R61	18.3	156
221	Forward-genetics analysis of sleep in randomly mutagenized mice. *Nature*, **2016**, 539, 378-383	50.4	152
220	Emergence of noise-induced oscillations in the central circadian pacemaker. *PLoS Biology*, **2010**, 8, e1000513	9.7	150
219	Real-time luminescence reporting of circadian gene expression in mammals. *Methods in Enzymology* , **2005**, 393, 288-301	1.7	146
218	Pineal opsin: a nonvisual opsin expressed in chick pineal. *Science*, **1995**, 267, 1502-6	33.3	145
217	The mouse Clock mutation behaves as an antimorph and maps within the W19H deletion, distal of Kit. *Genetics*, **1997**, 146, 1049-60	4	136
216	Circadian clock in cell culture: I. Oscillation of melatonin release from dissociated chick pineal cells in flow-through microcarrier culture. *Journal of Neuroscience*, **1988**, 8, 12-21	6.6	135
215	Light, immediate-early genes, and circadian rhythms. *Behavior Genetics*, **1996**, 26, 221-40	3.2	134
214	C57BL/6N mutation in cytoplasmic FMRP interacting protein 2 regulates cocaine response. *Science*, **2013**, 342, 1508-12	33.3	133
213	2-[125I]iodomelatonin binding sites in hamster brain membranes: pharmacological characteristics and regional distribution. *Endocrinology*, **1988**, 122, 1825-33	4.8	131
212	Molecular components of the circadian clock in mammals. *Diabetes, Obesity and Metabolism*, **2015**, 17 Suppl 1, 6-11	6.7	130
211	Genomics of circadian rhythms in health and disease. *Genome Medicine*, **2019**, 11, 82	14.4	130
210	Chimera analysis of the Clock mutation in mice shows that complex cellular integration determines circadian behavior. *Cell*, **2001**, 105, 25-42	56.2	128
209	Role of the suprachiasmatic nuclei in the circadian system of the house sparrow, Passer domesticus. *Journal of Neuroscience*, **1982**, 2, 815-28	6.6	128

208	Guidelines for Genome-Scale Analysis of Biological Rhythms. *Journal of Biological Rhythms*, **2017**, 32, 380-393	3.2	127
207	The orphan receptor Rev-erbalpha gene is a target of the circadian clock pacemaker. *Journal of Molecular Endocrinology*, **2004**, 33, 585-608	4.5	127
206	Aging alters circadian and light-induced expression of clock genes in golden hamsters. *Journal of Biological Rhythms*, **2003**, 18, 159-69	3.2	127
205	Photic and circadian expression of luciferase in mPeriod1-luc transgenic mice invivo. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 489-94	11.5	126
204	The physiology of circadian pacemakers. *Annual Review of Physiology*, **1978**, 40, 501-26	23.1	126
203	Medicine in the Fourth Dimension. *Cell Metabolism*, **2019**, 30, 238-250	24.6	125
202	Effects of aging on light-induced phase-shifting of circadian behavioral rhythms, fos expression and CREB phosphorylation in the hamster suprachiasmatic nucleus. *Neuroscience*, **1996**, 70, 951-61	3.9	124
201	Effects of aging on the circadian rhythm of wheel-running activity in C57BL/6 mice. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1997**, 273, R1957-64	3.2	123
200	Characteristics and autoradiographic localization of 2-[125I]iodomelatonin binding sites in Djungarian hamster brain. *Endocrinology*, **1989**, 125, 1011-8	4.8	119
199	Circadian clock genes contribute to the regulation of hair follicle cycling. *PLoS Genetics*, **2009**, 5, e1000573		117
198	Familial advanced sleep phase syndrome. *Archives of Neurology*, **2001**, 58, 1089-94		114
197	Neuromedin s-producing neurons act as essential pacemakers in the suprachiasmatic nucleus to couple clock neurons and dictate circadian rhythms. *Neuron*, **2015**, 85, 1086-102	13.9	108
196	Future of genetics of mood disorders research. *Biological Psychiatry*, **2002**, 52, 457-77	7.9	108
195	Mice under Caloric Restriction Self-Impose a Temporal Restriction of Food Intake as Revealed by an Automated Feeder System. *Cell Metabolism*, **2017**, 26, 267-277.e2	24.6	107
194	Sex- and lineage-specific inheritance of depression-like behavior in the rat. *Mammalian Genome*, **2004**, 15, 648-62	3.2	107
193	Differential effects of light and feeding on circadian organization of peripheral clocks in a forebrain Bmal1 mutant. *ELife*, **2014**, 3,	8.9	105
192	Molecular cloning and characterization of the human CLOCK gene: expression in the suprachiasmatic nuclei. *Genomics*, **1999**, 57, 189-200	4.3	103
191	Sequence interpretation. Functional annotation of mouse genome sequences. *Science*, **2001**, 291, 1251-5	33.3	101

190	Circadian clock in cell culture: II. In vitro photic entrainment of melatonin oscillation from dissociated chick pineal cells. *Journal of Neuroscience*, **1988**, 8, 22-30	6.6	100
189	Circadian clock genes and the transcriptional architecture of the clock mechanism. *Journal of Molecular Endocrinology*, **2019**, 63, R93-R102	4.5	100
188	Finding new clock components: past and future. *Journal of Biological Rhythms*, **2004**, 19, 339-47	3.2	98
187	In vivo single-cell detection of metabolic oscillations in stem cells. *Cell Reports*, **2015**, 10, 1-7	10.6	96
186	The circadian clock in skin: implications for adult stem cells, tissue regeneration, cancer, aging, and immunity. *Journal of Biological Rhythms*, **2015**, 30, 163-82	3.2	94
185	Vasopressin regulation of the proestrous luteinizing hormone surge in wild-type and Clock mutant mice. *Biology of Reproduction*, **2006**, 75, 778-84	3.9	93
184	The basic helix-loop-helix-PAS protein MOP9 is a brain-specific heterodimeric partner of circadian and hypoxia factors. *Journal of Neuroscience*, **2000**, 20, RC83	6.6	92
183	Why the neuroendocrine system is important in aging processes. *Experimental Gerontology*, **1987**, 22, 1-15	4.5	92
182	Light-induced decrease of serotonin N-acetyltransferase activity and melatonin in the chicken pineal gland and retina. *Brain Research*, **1983**, 266, 287-93	3.7	86
181	The Genomic Landscape and Pharmacogenomic Interactions of Clock Genes in Cancer Chronotherapy. *Cell Systems*, **2018**, 6, 314-328.e2	10.6	85
180	Development and Therapeutic Potential of Small-Molecule Modulators of Circadian Systems. *Annual Review of Pharmacology and Toxicology*, **2018**, 58, 231-252	17.9	85
179	Utilization of a whole genome SNP panel for efficient genetic mapping in the mouse. *Genome Research*, **2006**, 16, 436-40	9.7	85
178	Temperature compensation and temperature entrainment of the chick pineal cell circadian clock. *Journal of Neuroscience*, **1995**, 15, 5681-92	6.6	84
177	Small molecule modifiers of circadian clocks. *Cellular and Molecular Life Sciences*, **2013**, 70, 2985-98	10.3	82
176	Comparison of visual sensitivity for suppression of pineal melatonin and circadian phase-shifting in the golden hamster. *Brain Research*, **1991**, 554, 272-7	3.7	82
175	Brain-specific rescue of Clock reveals system-driven transcriptional rhythms in peripheral tissue. *PLoS Genetics*, **2012**, 8, e1002835	6	81
174	Adenylate cyclase activation shifts the phase of a circadian pacemaker. *Science*, **1983**, 220, 82-4	33.3	81
173	Gene set enrichment in eQTL data identifies novel annotations and pathway regulators. *PLoS Genetics*, **2008**, 4, e1000070	6	79

172	Circadian-clock regulation of gene expression. *Current Opinion in Genetics and Development*, **1993**, 3, 301-9	4.9	78
171	Searching for genes underlying behavior: lessons from circadian rhythms. *Science*, **2008**, 322, 909-12	33.3	77
170	The avian pineal, a vertebrate model system of the circadian oscillator: cellular regulation of circadian rhythms by light, second messengers, and macromolecular synthesis. *Endocrine Reviews*, **1989**, 45, 279-348; discussion 348-52		74
169	Implementing large-scale ENU mutagenesis screens in North America. *Genetica*, **2004**, 122, 51-64	1.5	73
168	Central circadian control of female reproductive function. *Frontiers in Endocrinology*, **2013**, 4, 195	5.7	72
167	Phosphorylation of LSD1 by PKC□is crucial for circadian rhythmicity and phase resetting. *Molecular Cell*, **2014**, 53, 791-805	17.6	71
166	Circadian rhythms: molecular basis of the clock. *Current Opinion in Genetics and Development*, **1998**, 8, 595-602	4.9	70
165	Genetics and neurobiology of circadian clocks in mammals. *Cold Spring Harbor Symposia on Quantitative Biology*, **2007**, 72, 251-259	3.9	70
164	Circadian clock genes are ticking. *Science*, **1992**, 258, 238-40	33.3	70
163	function in skeletal muscle regulates sleep. *ELife*, **2017**, 6,	8.9	66
162	Genomewide association analysis in diverse inbred mice: power and population structure. *Genetics*, **2007**, 176, 675-83	4	66
161	Molecular assembly of the period-cryptochrome circadian transcriptional repressor complex. *ELife*, **2014**, 3, e03674	8.9	65
160	Multiple redundant circadian oscillators within the isolated avian pineal gland. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1984**, 154, 435-440	2.3	63
159	Tissue-specific BMAL1 cistromes reveal that rhythmic transcription is associated with rhythmic enhancer-enhancer interactions. *Genes and Development*, **2019**, 33, 294-309	12.6	63
158	Nobiletin fortifies mitochondrial respiration in skeletal muscle to promote healthy aging against metabolic challenge. *Nature Communications*, **2019**, 10, 3923	17.4	62
157	HDAC5 and Its Target Gene, Npas4, Function in the Nucleus Accumbens to Regulate Cocaine-Conditioned Behaviors. *Neuron*, **2017**, 96, 130-144.e6	13.9	61
156	Large-scale mutagenesis of the mouse to understand the genetic bases of nervous system structure and function. *Molecular Brain Research*, **2004**, 132, 105-15		61
155	Lithium ameliorates nucleus accumbens phase-signaling dysfunction in a genetic mouse model of mania. *Journal of Neuroscience*, **2010**, 30, 16314-23	6.6	60

154	Circadian clock genes as modulators of sensitivity to genotoxic stress. *Cell Cycle*, **2005**, 4, 901-7	4.7	60
153	Anisomycin, an inhibitor of protein synthesis, perturbs the phase of a mammalian circadian pacemaker. *Brain Research*, **1987**, 405, 199-203	3.7	60
152	Light-dependent regulation of dopamine receptors in mammalian retina. *Brain Research*, **1985**, 335, 321-5	3.7	60
151	Twenty-four hour oscillation of cAMP in chick pineal cells: role of cAMP in the acute and circadian regulation of melatonin production. *Neuron*, **1989**, 3, 609-19	13.9	59
150	Genetic contributions to circadian activity rhythm and sleep pattern phenotypes in pedigrees segregating for severe bipolar disorder. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E754-61	11.5	58
149	Trypanosoma brucei metabolism is under circadian control. *Nature Microbiology*, **2017**, 2, 17032	26.6	57
148	Formation of a repressive complex in the mammalian circadian clock is mediated by the secondary pocket of CRY1. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 1560-1565	11.5	56
147	3PUTR and microRNA-24 regulate circadian rhythms by repressing PERIOD2 protein accumulation. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E8855-E8864	11.5	55
146	Hepatocyte circadian clock controls acetaminophen bioactivation through NADPH-cytochrome P450 oxidoreductase. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 18757-62	11.5	55
145	The gene for soluble N-ethylmaleimide sensitive factor attachment protein alpha is mutated in hydrocephaly with hop gait (hyh) mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 1748-53	11.5	54
144	A cholinergic antagonist, mecamylamine, blocks the phase-shifting effects of light on the circadian rhythm of locomotor activity in the golden hamster. *Brain Research*, **1987**, 403, 308-12	3.7	54
143	Automated Measurement of Mouse Freezing Behavior and its Use for Quantitative Trait Locus Analysis of Contextual Fear Conditioning in (BALB/cJ □C57BL/6J)F2 Mice. *Learning and Memory*, **1998**, 5, 391-403	2.8	54
142	Cell-Autonomous Regulation of Astrocyte Activation by the Circadian Clock Protein BMAL1. *Cell Reports*, **2018**, 25, 1-9.e5	10.6	54
141	Time-Restricted Feeding Shifts the Skin Circadian Clock and Alters UVB-Induced DNA Damage. *Cell Reports*, **2017**, 20, 1061-1072	10.6	53
140	Generation, identification and functional characterization of the nob4 mutation of Grm6 in the mouse. *Visual Neuroscience*, **2007**, 24, 111-23	1.7	53
139	Molecular approaches to understanding circadian oscillations. *Annual Review of Physiology*, **1993**, 55, 729-53	23.1	53
138	Transcriptional Basis for Rhythmic Control of Hunger and Metabolism within the AgRP Neuron. *Cell Metabolism*, **2019**, 29, 1078-1091.e5	24.6	53
137	Loss of circadian photoentrainment and abnormal retinal electrophysiology in Math5 mutant mice. *Investigative Ophthalmology and Visual Science*, **2005**, 46, 2540-51		51

136	Cyclic guanosine 3P5Pmonophosphate mimics the effects of light on a circadian pacemaker in the eye of aplysia. *Journal of Neuroscience*, **1984**, 4, 2466-71	6.6	51
135	Phosphorylation of the cryptochrome 1 C-terminal tail regulates circadian period length. *Journal of Biological Chemistry*, **2013**, 288, 35277-86	5.4	49
134	Methods to record circadian rhythm wheel running activity in mice. *Methods in Enzymology*, **2005**, 393, 230-9	1.7	49
133	Locomotor response to an open field during C57BL/6J active and inactive phases: differences dependent on conditions of illumination. *Physiology and Behavior*, **2000**, 69, 269-75	3.5	49
132	Alpha-2 adrenergic regulation of melatonin release in chick pineal cell cultures. *Journal of Neuroscience*, **1987**, 7, 3665-74	6.6	49
131	Sleeping sickness is a circadian disorder. *Nature Communications*, **2018**, 9, 62	17.4	47
130	Transcriptional program of Kpna2/Importin-2 regulates cellular differentiation-coupled circadian clock development in mammalian cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, E5039-48	11.5	47
129	Inducible and reversible Clock gene expression in brain using the tTA system for the study of circadian behavior. *PLoS Genetics*, **2007**, 3, e33	6	47
128	Effect of circadian phase on context and cued fear conditioning in C57BL/6J mice. *Learning and Behavior*, **2001**, 29, 133-142		47
127	Circadian rhythms: from gene expression to behavior. *Current Opinion in Neurobiology*, **1991**, 1, 556-61	7.6	47
126	Usf1, a suppressor of the circadian Clock mutant, reveals the nature of the DNA-binding of the CLOCK:BMAL1 complex in mice. *ELife*, **2013**, 2, e00426	8.9	47
125	Measurement of hypocretin/orexin content in the mouse brain using an enzyme immunoassay: the effect of circadian time, age and genetic background. *Peptides*, **2002**, 23, 2203-11	3.8	46
124	Chemical and structural analysis of a photoactive vertebrate cryptochrome from pigeon. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 19449-19457	11.5	45
123	Effects of aging on lens transmittance and retinal input to the suprachiasmatic nucleus in golden hamsters. *Neuroscience Letters*, **1998**, 258, 167-70	3.3	44
122	Interpretation of the mouse electroretinogram. *Documenta Ophthalmologica*, **2007**, 115, 127-36	2.2	44
121	Magnetic sensitivity of cryptochrome 4 from a migratory songbird. *Nature*, **2021**, 594, 535-540	50.4	44
120	An evolutionary hotspot defines functional differences between CRYPTOCHROMES. *Nature Communications*, **2018**, 9, 1138	17.4	43
119	Genetic suppression of the circadian Clock mutation by the melatonin biosynthesis pathway. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 8399-403	11.5	43

118	Effects of age on circadian rhythms are similar in wild-type and heterozygous Clock mutant mice. *Neurobiology of Aging*, **2004**, 25, 517-23	5.6	43
117	Large-scale mutagenesis and phenotypic screens for the nervous system and behavior in mice. *Trends in Neurosciences*, **2006**, 29, 233-40	13.3	42
116	Depressive-like behavior and stress reactivity are independent traits in a Wistar Kyoto x Fisher 344 cross. *Molecular Psychiatry*, **2003**, 8, 423-33	15.1	42
115	Dynamics of noradrenergic circadian input to the chicken pineal gland. *Brain Research*, **1986**, 384, 334-41	3.7	42
114	A cholinergic antagonist, mecamylamine, blocks light-induced fos immunoreactivity in specific regions of the hamster suprachiasmatic nucleus. *Brain Research*, **1993**, 615, 107-12	3.7	41
113	The Xenopus clock gene is constitutively expressed in retinal photoreceptors. *Molecular Brain Research*, **2000**, 75, 303-8		40
112	Genetic analysis of the stress-responsive adrenocortical axis. *Physiological Genomics*, **2006**, 27, 362-9	3.6	38
111	Vasoactive intestinal polypeptide (VIP)-expressing neurons in the suprachiasmatic nucleus provide sparse GABAergic outputs to local neurons with circadian regulation occurring distal to the opening of postsynaptic GABAA ionotropic receptors. *Journal of Neuroscience*, **2015**, 35, 1905-20	6.6	37
110	The malaria parasite has an intrinsic clock. *Science*, **2020**, 368, 746-753	33.3	37
109	Test- and behavior-specific genetic factors affect WKY hypoactivity in tests of emotionality. *Behavioural Brain Research*, **2006**, 169, 220-30	3.4	37
108	Cycling Transcriptional Networks Optimize Energy Utilization on a Genome Scale. *Cell Reports*, **2015** , 13, 1868-80	10.6	36
107	Impaired limbic gamma oscillatory synchrony during anxiety-related behavior in a genetic mouse model of bipolar mania. *Journal of Neuroscience*, **2011**, 31, 6449-56	6.6	34
106	Visual sensitivities of nur77 (NGFI-B) and zif268 (NGFI-A) induction in the suprachiasmatic nucleus are dissociated from c-fos induction and behavioral phase-shifting responses. *Molecular Brain Research*, **1997**, 46, 303-10		32
105	Regulation of the vgf gene in the golden hamster suprachiasmatic nucleus by light and by the circadian clock. *Journal of Comparative Neurology*, **1997**, 378, 229-238	3.4	32
104	Integration and saturation within the circadian photic entrainment pathway of hamsters. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1999**, 277, R1351-61	3.2	32
103	Somatostatin pretreatment desensitizes somatostatin receptors linked to adenylate cyclase and facilitates the stimulation of cyclic adenosine 3′,5′-monophosphate accumulation in anterior pituitary tumor cells. *Journal of Neuroscience*, **1984**, 4, 812-9	6.6	32
102	Mouse mutation reveals a mechanism involving mitochondrial dynamics that leads to age-dependent retinal pathologies. *ELife*, **2016**, 5,	8.9	32
101	Molecular cloning of chick pineal tryptophan hydroxylase and circadian oscillation of its mRNA levels. *Molecular Brain Research*, **1996**, 42, 25-30		31

100	A tunable artificial circadian clock in clock-defective mice. *Nature Communications*, **2015**, 6, 8587	17.4	30
99	Fos protein expression in the circadian clock is not associated with phase shifts induced by a nonphotic stimulus, triazolam. *Neuroscience Letters*, **1993**, 164, 203-8	3.3	30
98	X-linked and lineage-dependent inheritance of coping responses to stress. *Mammalian Genome*, **2003**, 14, 748-57	3.2	29
97	Circadian rhythms. ICER is nicer at night (sir!). *Current Biology*, **1994**, 4, 165-8	6.3	28
96	Vasoactive intestinal polypeptide and alpha 2-adrenoceptor agonists regulate adenosine 3Ꝑ5Pmonophosphate accumulation and melatonin release in chick pineal cell cultures. *Endocrinology*, **1989**, 125, 2375-84	4.8	28
95	Cyclic AMP-dependent melatonin production in Y79 human retinoblastoma cells. *Journal of Neurochemistry*, **1989**, 53, 307-10	6	28
94	Immunocytochemical localization of serotonergic fibers innervating the ocular circadian system of Aplysia. *Neuroscience*, **1989**, 28, 139-47	3.9	28
93	Entrainment of the circadian system of the house sparrow: A population of oscillators in pinealectomized birds. *Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology*, **1982**, 146, 245-253	2.3	28
92	Nonphotic phase-shifting in clock mutant mice. *Brain Research*, **2000**, 859, 398-403	3.7	27
91	Molecular Architecture of the Circadian Clock in Mammals. *Research and Perspectives in Endocrine Interactions*, **2016**, 13-24		27
90	Dual-Color Single-Cell Imaging of the Suprachiasmatic Nucleus Reveals a Circadian Role in Network Synchrony. *Neuron*, **2020**, 108, 164-179.e7	13.9	26
89	Enriching the Circadian Proteome. *Cell Metabolism*, **2017**, 25, 1-2	24.6	25
88	Circadian Transcriptional Output in the SCN and Liver of the Mouse. *Novartis Foundation Symposium* , **2008**, 171-183		25
87	Importance of circadian timing for aging and longevity. *Nature Communications*, **2021**, 12, 2862	17.4	25
86	Divergent and nonuniform gene expression patterns in mouse brain. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 19049-54	11.5	24
85	Characterization of the chicken rhodopsin promoter: identification of retina-specific and glass-like protein binding domains. *Molecular and Cellular Neurosciences*, **1994**, 5, 309-18	4.8	24
84	The microbiota coordinates diurnal rhythms in innate immunity with the circadian clock. *Cell*, **2021**, 184, 4154-4167.e12	56.2	24
83	Circadian behavior and plasticity of light-induced c-fos expression in SCN of tau mutant hamsters. *Journal of Biological Rhythms*, **1998**, 13, 305-14	3.2	23

82	Characterization of 2-[125I]iodomelatonin binding sites in hamster brain. *European Journal of Pharmacology*, **1986**, 132, 333-4	5.3	23
81	ChIP-seq and RNA-seq methods to study circadian control of transcription in mammals. *Methods in Enzymology*, **2015**, 551, 285-321	1.7	22
80	Light-dependent activation of rod transducin by pineal opsin. *Journal of Biological Chemistry*, **1998**, 273, 26820-6	5.4	22
79	Light entrainment and activation of signal transduction pathways in the SCN. *Progress in Brain Research*, **1996**, 111, 133-46	2.9	22
78	Critical period for cycloheximide blockade of light-induced phase advances of the circadian locomotor activity rhythm in golden hamsters. *Brain Research*, **1996**, 740, 285-90	3.7	22
77	Lability of circadian pacemaker amplitude in chick pineal cells: a temperature-dependent process. *Journal of Biological Rhythms*, **1997**, 12, 309-18	3.2	21
76	A circadian sleep disorder reveals a complex clock. *Cell*, **2007**, 128, 22-3	56.2	21
75	Results from screening over 9000 mutation-bearing mice for defects in the electroretinogram and appearance of the fundus. *Vision Research*, **2004**, 44, 3335-45	2.1	21
74	The circadian clock: from molecules to behaviour. *Annals of Medicine*, **1995**, 27, 481-90	1.5	21
73	Phase shifting the circadian clock with cycloheximide: response of hamsters with an intact or a split rhythm of locomotor activity. *Brain Research*, **1989**, 496, 82-8	3.7	21
72	Forward genetic screens to identify circadian rhythm mutants in mice. *Methods in Enzymology*, **2005** , 393, 219-29	1.7	20
71	HCFC2 is needed for IRF1- and IRF2-dependent transcription and for survival during viral infections. *Journal of Experimental Medicine*, **2017**, 214, 3263-3277	16.6	19
70	Circadian control of interferon-sensitive gene expression in murine skin. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 5761-5771	11.5	19
69	Novel transcriptional networks regulated by CLOCK in human neurons. *Genes and Development*, **2017**, 31, 2121-2135	12.6	19
68	Second-generation high-throughput forward genetic screen in mice to isolate subtle behavioral mutants. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108 Suppl 3, 15557-64	11.5	19
67	Generation, characterization, and molecular cloning of the Noerg-1 mutation of rhodopsin in the mouse. *Visual Neuroscience*, **2005**, 22, 619-29	1.7	19
66	Pharmacological and genetic approaches for the study of circadian rhythms in mammals. *Frontiers in Neuroendocrinology*, **1995**, 16, 191-223	8.9	19
65	Regulation of tryptophan hydroxylase by cyclic AMP, calcium, norepinephrine, and light in cultured chick pineal cells. *Journal of Neurochemistry*, **1996**, 67, 242-50	6	18

64	N-acetyltransferase and protein synthesis modulate melatonin production by Y79 human retinoblastoma cells. *Brain Research*, **1991**, 540, 138-44	3.7	18
63	Lineage is an epigenetic modifier of QTL influencing behavioral coping with stress. *Behavior Genetics*, **2005**, 35, 189-98	3.2	17
62	Calcium modulates circadian variation in cAMP-stimulated melatonin in chick pineal cells. *Brain Research*, **1996**, 716, 1-10	3.7	17
61	Circadian rhythms in parasites. *PLoS Pathogens*, **2017**, 13, e1006590	7.6	17
60	A pertussis toxin-sensitive G-protein mediates the alpha 2-adrenergic receptor inhibition of melatonin release in photoreceptive chick pineal cell cultures. *Endocrinology*, **1988**, 123, 277-83	4.8	16
59	Noise-driven cellular heterogeneity in circadian periodicity. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 10350-10356	11.5	15
58	Ghrelin-immunopositive hypothalamic neurons tie the circadian clock and visual system to the lateral hypothalamic arousal center. *Molecular Metabolism*, **2012**, 1, 79-85	8.8	15
57	Maternal behavior modulates X-linked inheritance of behavioral coping in the defensive burying test. *Biological Psychiatry*, **2004**, 55, 1069-74	7.9	15
56	Quantitative trait loci associated with elevated thyroid-stimulating hormone in the Wistar-Kyoto rat. *Endocrinology*, **2005**, 146, 870-8	4.8	14
55	The mouse Clock locus: sequence and comparative analysis of 204 kb from mouse chromosome 5. *Genome Research*, **2000**, 10, 1928-40	9.7	13
54	Loss of ZBTB20 impairs circadian output and leads to unimodal behavioral rhythms. *ELife*, **2016**, 5,	8.9	13
53	Generation of N-ethyl-N-nitrosourea (ENU) diabetes models in mice demonstrates genotype-specific action of glucokinase activators. *Journal of Biological Chemistry*, **2011**, 286, 39560-72	5.4	12
52	Day/night differences in the stimulation of adenylate cyclase activity by calcium/calmodulin in chick pineal cell cultures: evidence for circadian regulation of cyclic AMP. *Journal of Biological Rhythms*, **1998**, 13, 479-93	3.2	12
51	Narcolepsy genes wake up the sleep field. *Science*, **1999**, 285, 2076-7	33.3	11
50	An essential role for MEF2C in the cortical response to loss of sleep in mice. *ELife*, **2020**, 9,	8.9	11
49	Circadian alignment of early onset caloric restriction promotes longevity in male C57BL/6J mice.. *Science*, **2022**, 376, e	33.3	11
48	An actigraphy study investigating sleep in bipolar I patients, unaffected siblings and controls. *Journal of Affective Disorders*, **2017**, 208, 248-254	6.6	10
47	PARP around the clock. *Cell*, **2010**, 142, 841-3	56.2	10

46	Quantitative two-dimensional gel electrophoretic analysis of clock-controlled proteins in cultured chick pineal cells: circadian regulation of tryptophan hydroxylase. *Journal of Biological Rhythms*, **1996**, 11, 241-57	3.2	10
45	Chemical perturbations reveal that RUVBL2 regulates the circadian phase in mammals. *Science Translational Medicine*, **2020**, 12,	17.5	9
44	Identification of genetic loci involved in diabetes using a rat model of depression. *Mammalian Genome*, **2009**, 20, 486-97	3.2	9
43	Xenobiotic metabolism in the fourth dimension: PARtners in time. *Cell Metabolism*, **2006**, 4, 3-4	24.6	8
42	A genome end-game: understanding gene function in the nervous system. *Nature Neuroscience*, **2004**, 7, 484-5	25.5	8
41	Epigenetic inheritance of circadian period in clonal cells. *ELife*, **2020**, 9,	8.9	8
40	Mean-Variance QTL Mapping Identifies Novel QTL for Circadian Activity and Exploratory Behavior in Mice. *G3: Genes, Genomes, Genetics*, **2018**, 8, 3783-3790	3.2	8
39	NPAS4 regulates the transcriptional response of the suprachiasmatic nucleus to light and circadian behavior. *Neuron*, **2021**, 109, 3268-3282.e6	13.9	8
38	Neuronal Myocyte-Specific Enhancer Factor 2D (MEF2D) Is Required for Normal Circadian and Sleep Behavior in Mice. *Journal of Neuroscience*, **2019**, 39, 7958-7967	6.6	7
37	A novel mouse model overexpressing Nocturnin results in decreased fat mass in male mice. *Journal of Cellular Physiology*, **2019**, 234, 20228-20239	7	7
36	Circadian Oscillations of NADH Redox State Using a Heterologous Metabolic Sensor in Mammalian Cells. *Journal of Biological Chemistry*, **2016**, 291, 23906-23914	5.4	7
35	Circadian Rhythmicity **1984**, 285-303		7
34	Epidermal stem cells ride the circadian wave. *Genome Biology*, **2013**, 14, 140	18.3	6
33	Identification of mutations through dominant screening for obesity using C57BL/6 substrains. *Scientific Reports*, **2016**, 6, 32453	4.9	5
32	Genetic analysis of the circadian system of mammals: properties and prospects. *Seminars in Neuroscience*, **1995**, 7, 61-70		5
31	Forskolin and camptothecin induce a 30 kDa protein associated with melatonin production in Y79 human retinoblastoma cells. *Journal of Neuroscience*, **1995**, 15, 298-309	6.6	5
30	Sleeping Sickness: A Tale of Two Clocks. *Frontiers in Cellular and Infection Microbiology*, **2020**, 10, 525097	5.9	5
29	Introduction to Circadian Rhythms. *Handbook of Behavioral Neurobiology*, **2001**, 3-6		4

28	The biological clock: it's all in the genes. *Progress in Brain Research*, **1996**, 111, 5-9	2.9	4
27	RNA synthesis inhibitors increase melatonin production in Y79 human retinoblastoma cells. *Molecular Brain Research*, **1994**, 23, 47-56		4
26	Biological Rhythms: From Gene Expression to Behavior **1993**, 3-20		4
25	Chapter 2.1.7 Genetic dissection of mouse behavior using induced mutagenesis. *Handbook of Behavioral Neuroscience*, **1999**, 147-165		3
24	Synchronization between peripheral circadian clock and feeding-fasting cycles in microfluidic device sustains oscillatory pattern of transcriptome. *Nature Communications*, **2021**, 12, 6185	17.4	3
23	Natural antisense transcript of regulates the amplitude of the mouse circadian clock. *Genes and Development*, **2021**, 35, 899-913	12.6	3
22	Alterations in the circadian system in advanced age. *Novartis Foundation Symposium*, **1995**, 183, 212-26; discussion 226-34		3
21	Mouse chimeras and their application to circadian biology. *Methods in Enzymology*, **2005**, 393, 478-92	1.7	2
20	The Mouse Clock Locus: Sequence and Comparative Analysis of 204 Kb from Mouse Chromosome 5. *Genome Research*, **2000**, 10, 1928-1940	9.7	2
19	Adverse impact of polyphasic sleep patterns in humans: Report of the National Sleep Foundation sleep timing and variability consensus panel. *Sleep Health*, **2021**, 7, 293-302	4	2
18	Tissue-specific FAH deficiency alters sleep-wake patterns and results in chronic tyrosinemia in mice. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 22229-22236	11.5	2
17	A Hyperkinetic Redox Sensor Drives Flies to Sleep. *Trends in Neurosciences*, **2019**, 42, 514-517	13.3	1
16	Phase-Resetting Sensitivity of the Suprachiasmatic Nucleus and Oscillator Amplitude: Reply to Letter by Ruby. *Journal of Biological Rhythms*, **2011**, 26, 371-373	3.2	1
15	Biography of Joseph S. Takahashi. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 5336-8	11.5	1
14	Photic threshold for stimulation of testicular growth and pituitary FSH release in male Djungarian hamsters. *Brain Research*, **1990**, 512, 304-8	3.7	1
13	Mean-Variance QTL Mapping Identifies Novel QTL for Circadian Activity and Exploratory Behavior in Mice		1
12	Tissue-specific BMAL1 cistromes reveal that enhancer-enhancer interactions regulate rhythmic transcription		1
11	Cell-autonomous regulation of astrocyte activation by the circadian clock protein BMAL1		1

10	Sleeping Sickness Disrupts the Sleep-Regulating Adenosine System. *Journal of Neuroscience*, **2020**, 40, 9306-9316	6.6	1
9	Genetic analysis of activity, brain and behavioral associations in extended families with heavy genetic loading for bipolar disorder. *Psychological Medicine*, **2021**, 51, 494-502	6.9	1
8	The 50th anniversary of the Konopka and Benzer 1971 paper in PNAS: "Clock Mutants of ". *Proceedings of the National Academy of Sciences of the United States of America*, **2021**, 118,	11.5	1
7	Introduction to the Clock System. *Advances in Experimental Medicine and Biology*, **2021**, 1344, 3-20	3.6	0
6	A novel mutation in Slc2a4 as a mouse model of fatigue. *Genes, Brain and Behavior*, **2019**, 18, e12578	3.6	
5	Genetic control of the circadian pacemaker119-126		
4	Circadian alignment of feeding regulates lifespan extension by caloric restriction. *Innovation in Aging*, **2021**, 5, 116-116	0.1	
3	Michael Menaker (1934-2021). *Journal of Biological Rhythms*, **2021**, 36, 495-498	3.2	
2	Light Regulates c-fos Gene Expression in the Hamster SCN: Implications for Circadian and Seasonal Control of Reproduction **1992**, 95-106		
1	Beth Levine M.D. Prize in Autophagy Research. *Autophagy*,1-1	10.2	