Siegfried Hekimi

List of Publications by Year
in descending order

103 papers	12,170 citations	43973 48 h-index	32761 100 g-index
149 all docs	149 docs citations	149 times ranked	10652 citing authors

#	Article	IF	Citations
1	A novel COQ7 mutation causing primarily neuromuscular pathology and its treatment options. Molecular Genetics and Metabolism Reports, 2022, 31, 100877.	0.4	10
2	Cell-specific transcriptional control of mitochondrial metabolism by TIF1Î³ drives erythropoiesis. Science, 2021, 372, 716-721.	6.0	25
3	Minimal mitochondrial respiration is required to prevent cell death by inhibition of mTOR signaling in CoQ-deficient cells. Cell Death Discovery, 2021, 7, 201.	2.0	6
4	Micellization of coenzyme Q by the fungicide caspofungin allows for safe intravenous administration to reach extreme supraphysiological concentrations. Redox Biology, 2020, 36, 101680.	3.9	16
5	ROS regulation of RAS and vulva development in Caenorhabditis elegans. PLoS Genetics, 2020, 16, e1008838.	1.5	14
6	SK channel-mediated metabolic escape to glycolysis inhibits ferroptosis and supports stress resistance in C. elegans. Cell Death and Disease, 2020, 11, 263.	2.7	34
7	The Complexity of Making Ubiquinone. Trends in Endocrinology and Metabolism, 2019, 30, 929-943.	3.1	46
8	Superoxide dismutases: Dual roles in controlling ROS damage and regulating ROS signaling. Journal of Cell Biology, 2018, 217, 1915-1928.	2.3	1,091
9	Making a splash with splicing. Cell Research, 2017, 27, 457-458.	5.7	0
10	A single biochemical activity underlies the pleiotropy of the aging-related protein CLK-1. Scientific Reports, 2017, 7, 859.	1.6	24
11	Proteostasis or Aging: Let the CHIPs Fall Where They May. Developmental Cell, 2017, 41, 126-128.	3.1	3
12	Pathogenicity of two <i>COQ7</i> mutations and responses to 2,4â€dihydroxybenzoate bypass treatment. Journal of Cellular and Molecular Medicine, 2017, 21, 2329-2343.	1.6	57
13	Many possible maximum lifespan trajectories. Nature, 2017, 546, E8-E9.	13.7	25
14	Antioxidants reveal an inverted Uâ€shaped doseâ€response relationship between reactive oxygen species levels and the rate of aging in <i>Caenorhabditis elegans</i>. Aging Cell, 2017, 16, 104-112.	3.0	62
15	Estimating the occurrence of primary ubiquinone deficiency by analysis of large-scale sequencing data. Scientific Reports, 2017, 7, 17744.	1.6	31
16	Functional Requirements for Heparan Sulfate Biosynthesis in Morphogenesis and Nervous System Development in C. elegans. PLoS Genetics, 2017, 13, e1006525.	1.5	19
17	Mitochondrial ROS and the Effectors of the Intrinsic Apoptotic Pathway in Aging Cells: The Discerning Killers!. Frontiers in Genetics, 2016, 7, 161.	1.1	64
18	Different Mechanisms of Longevity in Long-Lived Mouse and <i>Caenorhabditis elegans</i> Mutants Revealed by Statistical Analysis of Mortality Rates. Genetics, 2016, 204, 905-920.	1.2	37

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19	Understanding Ubiquinone. Trends in Cell Biology, 2016, 26, 367-378.	3.6	192
20	Coenzyme Q10 restores oocyte mitochondrial function and fertility during reproductive aging. Aging Cell, 2015, 14, 887-895.	3.0	313
21	Mitochondrial dysfunction and longevity in animals: Untangling the knot. Science, 2015, 350, 1204-1207.	6.0	213
22	Mitochondrial function and lifespan of mice with controlled ubiquinone biosynthesis. Nature Communications, 2015, 6, 6393.	5.8	102
23	Mitochondrial and Cytoplasmic ROS Have Opposing Effects on Lifespan. PLoS Genetics, 2015, 11, e1004972.	1.5	165
24	CEP-1, the Caenorhabditis elegans p53 Homolog, Mediates Opposing Longevity Outcomes in Mitochondrial Electron Transport Chain Mutants. PLoS Genetics, 2014, 10, e1004097.	1.5	57
25	The Intrinsic Apoptosis Pathway Mediates the Pro-Longevity Response to Mitochondrial ROS in C.Âelegans. Cell, 2014, 157, 897-909.	13.5	327
26	Compensatory elevation of voluntary activity in mouse mutants with impaired mitochondrial energy metabolism. Physiological Reports, 2014, 2, e12214.	0.7	2
27	Molecular genetics of ubiquinone biosynthesis in animals. Critical Reviews in Biochemistry and Molecular Biology, 2013, 48, 69-88.	2.3	57
28	Mitochondrial respiration without ubiquinone biosynthesis. Human Molecular Genetics, 2013, 22, 4768-4783.	1.4	35
29	Enhanced immunity in slowly aging mutant mice with high mitochondrial oxidative stress. OncoImmunology, 2013, 2, e23793.	2.1	18
30	The impact of mitochondrial oxidative stress on bile acid-like molecules inC. elegansprovides a new perspective on human metabolic diseases. Worm, 2013, 2, e21457.	1.0	3
31	Mitochondrial Oxidative Stress Alters a Pathway in Caenorhabditis elegans Strongly Resembling That of Bile Acid Biosynthesis and Secretion in Vertebrates. PLoS Genetics, 2012, 8, e1002553.	1.5	13
32	Superoxide dismutase is dispensable for normal animal lifespan. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5785-5790.	3.3	283
33	The submitochondrial distribution of ubiquinone affects respiration in long-lived <i>Mclk1+/â^’</i> mice. Journal of Cell Biology, 2012, 199, 215-224.	2.3	46
34	An Enhanced Immune Response of Mclk1+/â^’ Mutant Mice Is Associated with Partial Protection from Fibrosis, Cancer and the Development of Biomarkers of Aging. PLoS ONE, 2012, 7, e49606.	1.1	15
35	A Mild Impairment of Mitochondrial Electron Transport Has Sex-Specific Effects on Lifespan and Aging in Mice. PLoS ONE, 2011, 6, e26116.	1.1	45
36	Taking a â€œgoodâ€•look at free radicals in the aging process. Trends in Cell Biology, 2011, 21, 569-576.	3.6	484

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37	FUdR causes a twofold increase in the lifespan of the mitochondrial mutant gas-1. Mechanisms of Ageing and Development, 2011, 132, 519-521.	2.2	108
38	Epithelial Cell Death Is an Important Contributor to Oxidant-mediated Acute Lung Injury. American Journal of Respiratory and Critical Care Medicine, 2011, 183, 1043-1054.	2.5	93
39	Phylogenetic ubiquity of the effects of altered ubiquinone biosynthesis on survival. Aging, 2011, 3, 184-185.	1.4	0
40	When a theory of aging ages badly. Cellular and Molecular Life Sciences, 2010, 67, 1-8.	2.4	232
41	Lipid transport and signaling in <i>Caenorhabditis elegans</i>. Developmental Dynamics, 2010, 239, 1365-1377.	0.8	24
42	Two modes of mitochondrial dysfunction lead independently to lifespan extension in <i>Caenorhabditis elegans</i>. Aging Cell, 2010, 9, 433-447.	3.0	208
43	Decreased Energy Metabolism Extends Life Span in<i>Caenorhabditis elegans</i>Without Reducing Oxidative Damage. Genetics, 2010, 185, 559-571.	1.2	95
44	Elevated Mitochondrial Reactive Oxygen Species Generation Affects the Immune Response via Hypoxia-Inducible Factor-1Î± in Long-Lived <i>Mclk1</i>+/âˆ’ Mouse Mutants. Journal of Immunology, 2010, 184, 582-590.	0.4	109
45	A Mitochondrial Superoxide Signal Triggers Increased Longevity in Caenorhabditis elegans. PLoS Biology, 2010, 8, e1000556.	2.6	519
46	Reactive Oxygen Species and Aging in<i>Caenorhabditis elegans</i>: Causal or Casual Relationship?. Antioxidants and Redox Signaling, 2010, 13, 1911-1953.	2.5	158
47	Lifelong protection from global cerebral ischemia and reperfusion in long-lived Mclk1+/âˆ’ mutants. Experimental Neurology, 2010, 223, 557-565.	2.0	15
48	Impact papers on aging in 2009. Aging, 2010, 2, 111-121.	1.4	35
49	The Anti-neurodegeneration Drug Clioquinol Inhibits the Aging-associated Protein CLK-1. Journal of Biological Chemistry, 2009, 284, 314-323.	1.6	45
50	Deletion of the Mitochondrial Superoxide Dismutase sod-2 Extends Lifespan in Caenorhabditis elegans. PLoS Genetics, 2009, 5, e1000361.	1.5	416
51	Mclk1+/- mice are not resistant to the development of atherosclerosis. Lipids in Health and Disease, 2009, 8, 16.	1.2	1
52	Reversal of the Mitochondrial Phenotype and Slow Development of Oxidative Biomarkers of Aging in Long-lived Mclk1+/âˆ’ Mice. Journal of Biological Chemistry, 2009, 284, 20364-20374.	1.6	81
53	Early Mitochondrial Dysfunction in Long-lived Mclk1+/- Mice. Journal of Biological Chemistry, 2008, 283, 26217-26227.	1.6	194
54	Evolutionary conservation of drug action on lipoprotein metabolism-related targets. Journal of Lipid Research, 2008, 49, 74-83.	2.0	7

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55	A Measurable Increase in Oxidative Damage Due to Reduction in Superoxide Detoxification Fails to Shorten the Life Span of Long-Lived Mitochondrial Mutants of <i>Caenorhabditis elegans</i>. Genetics, 2007, 177, 2063-2074.	1.2	147
56	How genetic analysis tests theories of animal aging. Nature Genetics, 2006, 38, 985-991.	9.4	57
57	The age of heterozygosity. Age, 2006, 28, 201-208.	3.0	3
58	Genetic and molecular characterization of CLK-1/mCLK1, a conserved determinant of the rate of aging. Experimental Gerontology, 2006, 41, 940-951.	1.2	33
59	What keeps C. elegans regular: the genetics of defecation. Trends in Genetics, 2006, 22, 571-579.	2.9	77
60	Uncoupling the Pleiotropic Phenotypes of clk-1 with tRNA Missense Suppressors in Caenorhabditis elegans. Molecular and Cellular Biology, 2006, 26, 3976-3985.	1.1	28
61	Evolutionary conservation of the clk-1-dependent mechanism of longevity: loss of mclk1 increases cellular fitness and lifespan in mice. Genes and Development, 2005, 19, 2424-2434.	2.7	309
62	Thiamine Pyrophosphate Biosynthesis and Transport in the Nematode Caenorhabditis elegansSequence data from this article have been deposited with the EMBL/GenBank Data Libraries under accession no. AY513235.. Genetics, 2004, 168, 845-854.	1.2	31
63	Genetics and the Specificity of the Aging Process. Science, 2003, 299, 1351-1354.	6.0	414
64	Redox Regulation of Germline and Vulval Development in Caenorhabditis elegans. Science, 2003, 302, 1779-1782.	6.0	111
65	Sensitivity of Caenorhabditis elegans clk-1 Mutants toUbiquinone Side-chain Length Reveals Multiple Ubiquinone-dependent Processes. Journal of Biological Chemistry, 2003, 278, 41013-41018.	1.6	32
66	Human CLK2 Links Cell Cycle Progression, Apoptosis, and Telomere Length Regulation. Journal of Biological Chemistry, 2003, 278, 21678-21684.	1.6	36
67	Molecular Mechanism of Maternal Rescue in the clk-1 Mutants of Caenorhabditis elegans. Journal of Biological Chemistry, 2003, 278, 49555-49562.	1.6	21
68	Ubiquinone Is Necessary for Caenorhabditis elegansDevelopment at Mitochondrial and Non-mitochondrial Sites. Journal of Biological Chemistry, 2002, 277, 2202-2206.	1.6	64
69	Quinones in long-livedclk-1mutants ofCaenorhabditis elegans. FEBS Letters, 2002, 512, 33-37.	1.3	43
70	Long-lived mutants, the rate of aging, telomeres and the germline in Caenorhabditis elegans. Mechanisms of Ageing and Development, 2002, 123, 869-880.	2.2	6
71	Mitochondrial Electron Transport Is a Key Determinant of Life Span in Caenorhabditis elegans. Developmental Cell, 2001, 1, 633-644.	3.1	572
72	Why only time will tell. Mechanisms of Ageing and Development, 2001, 122, 571-594.	2.2	30

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73	Genetics of lifespan in C. elegans: molecular diversity, physiological complexity, mechanistic simplicity. Trends in Genetics, 2001, 17, 712-718.	2.9	66
74	Altered Quinone Biosynthesis in the Long-lived clk-1Mutants of Caenorhabditis elegans. Journal of Biological Chemistry, 2001, 276, 7713-7716.	1.6	189
75	Mouse CLK-1 Is Imported into Mitochondria by an Unusual Process That Requires a Leader Sequence but No Membrane Potential. Journal of Biological Chemistry, 2001, 276, 29218-29225.	1.6	35
76	Ubiquinone Is Necessary for Mouse Embryonic Development but Is Not Essential for Mitochondrial Respiration. Journal of Biological Chemistry, 2001, 276, 46160-46164.	1.6	117
77	Regulation of Physiological Rates in Caenorhabditis elegans by a tRNA-Modifying Enzyme in the Mitochondria. Genetics, 2001, 159, 147-157.	1.2	43
78	Phenotypic and Suppressor Analysis of Defecation in <i>clk-1</i> Mutants Reveals That Reaction to Changes in Temperature Is an Active Process in <i>Caenorhabditis elegans</i>. Genetics, 2001, 159, 997-1006.	1.2	42
79	The<i>C. elegans</i>maternal-effect gene<i>clk-2</i>is essential for embryonic development, encodes a protein homologous to yeast Tel2p and affects telomere length. Development (Cambridge), 2001, 128, 4045-4055.	1.2	63
80	The C. elegans maternal-effect gene clk-2 is essential for embryonic development, encodes a protein homologous to yeast Tel2p and affects telomere length. Development (Cambridge), 2001, 128, 4045-55.	1.2	19
81	clk-1, mitochondria, and physiological rates. BioEssays, 2000, 22, 48-56.	1.2	80
82	ROP-1, an RNA quality-control pathway component, affects Caenorhabditis elegans dauer formation. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 13233-13238.	3.3	29
83	Crossroads of Aging in the Nematode Caenorhabditis elegans. Results and Problems in Cell Differentiation, 2000, 29, 81-112.	0.2	14
84	Assessing the function of the Ro ribonucleoprotein complex using<i>Caenorhabditis elegans</i>as a biological tool. Biochemistry and Cell Biology, 1999, 77, 349-354.	0.9	5
85	CLK-1 controls respiration, behavior and aging in the nematode Caenorhabditis elegans. EMBO Journal, 1999, 18, 1783-1792.	3.5	250
86	The Levels of the RoRNP-Associated Y RNA Are Dependent Upon the Presence of ROP-1, the Caenorhabditis elegans Ro60 Protein. Genetics, 1999, 151, 143-150.	1.2	50
87	Molecular genetics of life span in C. elegans: How much does it teach us?. Trends in Genetics, 1998, 14, 14-20.	2.9	101
88	The genetics of caloric restriction in Caenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 13091-13096.	3.3	863
89	Structural and Functional Conservation of theCaenorhabditis elegansTiming Geneclk-1. Science, 1997, 275, 980-983.	6.0	312
90	Cellular and axonal migrations are misguided along both body axes in the maternal-effect <i>mau-2</i> mutants of <i>Caenorhabditis elegans</i>. Development (Cambridge), 1997, 124, 5115-5126.	1.2	13

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91	Determination of Life-Span in Caenorhabditis elegans by Four Clock Genes. Science, 1996, 272, 1010-1013.	6.0	507
92	Mutations in the clk-1 gene of Caenorhabditis elegans affect developmental and behavioral timing.. Genetics, 1995, 139, 1247-1259.	1.2	384
93	Meiotic recombination, noncoding DNA and genomic organization in Caenorhabditis elegans.. Genetics, 1995, 141, 159-179.	1.2	231
94	Viable maternal-effect mutations that affect the development of the nematode Caenorhabditis elegans.. Genetics, 1995, 141, 1351-1364.	1.2	67
95	Axonal guidance defects in a Caenorhabditis elegans mutant reveal cell- extrinsic determinants of neuronal morphology. Journal of Neuroscience, 1993, 13, 4254-4271.	1.7	53
96	The unc-18 Gene Encodes a Novel Protein Affecting the Kinetics of Acetylcholine Metabolism in the Nematode Caenorhabditis elegans. Journal of Neurochemistry, 1992, 58, 1517-1525.	2.1	170
97	Regulation of neuropeptide stoichiometry in neurosecretory cells. Journal of Neuroscience, 1991, 11, 3246-3256.	1.7	33
98	A neuron-specific antigen in C. elegans allows visualization of the entire nervous system. Neuron, 1990, 4, 855-865.	3.8	11
99	Locust Adipokinetic Hormones: Molecular Biology of Biosynthesis. , 1990, , 189-197.		3
100	Biosynthesis of adipokinetic hormones (AKHs): further characterization of precursors and identification of novel products of processing. Journal of Neuroscience, 1989, 9, 996-1003.	1.7	43
101	Antisera against AKHs and AKH precursors for experimental studies of an insect neurosecretory system. Insect Biochemistry, 1989, 19, 79-83.	1.8	11
102	Dimer structure of a neuropeptide precursor established: Consequences for processing. Neuron, 1989, 2, 1363-1368.	3.8	34
103	Identification and purification of two precursors of the insect neuropeptide adipokinetic hormone. Journal of Neuroscience, 1987, 7, 2773-2784.	1.7	44