Simon Melov

List of Publications by Year
in descending order

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99 papers	16,865 citations	19608 61 h-index	32761 100 g-index
108 all docs	108 docs citations	108 times ranked	19627 citing authors

#	Article	IF	Citations
1	Dilated cardiomyopathy and neonatal lethality in mutant mice lacking manganese superoxide dismutase. Nature Genetics, 1995, 11, 376-381.	9.4	1,609
2	Oxygen sensitivity severely limits the replicative lifespan of murine fibroblasts. Nature Cell Biology, 2003, 5, 741-747.	4.6	1,003
3	Cellular Senescence Promotes Adverse Effects of Chemotherapy and Cancer Relapse. Cancer Discovery, 2017, 7, 165-176.	7.7	881
4	Extension of Life-Span with Superoxide Dismutase/Catalase Mimetics. Science, 2000, 289, 1567-1569.	6.0	876
5	Thermotolerance and extended life-span conferred by single-gene mutations and induced by thermal stress.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 7540-7544.	3.3	814
6	From discoveries in ageing research to therapeutics for healthy ageing. Nature, 2019, 571, 183-192.	13.7	730
7	Mitochondrial disease in mouse results in increased oxidative stress. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 4820-4825.	3.3	576
8	Mitochondrial disease in superoxide dismutase 2 mutant mice. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 846-851.	3.3	535
9	Radicals r'aging. Nature Genetics, 1998, 19, 105-106.	9.4	496
10	A novel neurological phenotype in mice lacking mitochondrial manganese superoxide dismutase. Nature Genetics, 1998, 18, 159-163.	9.4	477
11	Analysis of global mRNA expression in human skeletal muscle during recovery from endurance exercise. FASEB Journal, 2005, 19, 1498-1500.	0.2	365
12	Cellular senescence: A link between cancer and age-related degenerative disease?. Seminars in Cancer Biology, 2011, 21, 354-9.	4.3	339
13	Genetic Correction of Huntington's Disease Phenotypes in Induced Pluripotent Stem Cells. Cell Stem Cell, 2012, 11, 253-263.	5.2	336
14	Endurance exercise rescues progeroid aging and induces systemic mitochondrial rejuvenation in mtDNA mutator mice. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4135-4140.	3.3	313
15	Mitochondrial Oxidative Stress Causes Hyperphosphorylation of Tau. PLoS ONE, 2007, 2, e536.	1.1	291
16	Oxidative stress and aging: beyond correlation. Aging Cell, 2002, 1, 117-123.	3.0	281
17	Lifespan Extension and Rescue of Spongiform Encephalopathy in Superoxide Dismutase 2 Nullizygous Mice Treated with Superoxide Dismutaseâ€“Catalase Mimetics. Journal of Neuroscience, 2001, 21, 8348-8353.	1.7	280
18	Resistance Exercise Reverses Aging in Human Skeletal Muscle. PLoS ONE, 2007, 2, e465.	1.1	267

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19	Late-life rapamycin treatment reverses age-related heart dysfunction. Aging Cell, 2013, 12, 851-862.	3.0	258
20	Marked increase in the number and variety of mitochondrial DNA rearrangements in aging human skeletal muscle. Nucleic Acids Research, 1995, 23, 4122-4126.	6.5	256
21	SOD2 in mitochondrial dysfunction and neurodegeneration. Free Radical Biology and Medicine, 2013, 62, 4-12.	1.3	254
22	Massage Therapy Attenuates Inflammatory Signaling After Exercise-Induced Muscle Damage. Science Translational Medicine, 2012, 4, 119ra13.	5.8	223
23	Mitochondrial oxidative stress caused by Sod2 deficiency promotes cellular senescence and aging phenotypes in the skin. Aging, 2012, 4, 3-12.	1.4	215
24	Medical research: Treat ageing. Nature, 2014, 511, 405-407.	13.7	211
25	On the Programmed/Non-Programmed Nature of Ageing within the Life History. Current Biology, 2011, 21, R701-R707.	1.8	193
26	Analysis of individual cells identifies cellâ€toâ€cell variability following induction of cellular senescence. Aging Cell, 2017, 16, 1043-1050.	3.0	182
27	Endogenous mitochondrial oxidative stress: neurodegeneration, proteomic analysis, specific respiratory chain defects, and efficacious antioxidant therapy in superoxide dismutase 2 null mice. Journal of Neurochemistry, 2003, 88, 657-667.	2.1	170
28	Pharmacogenetic Analysis of Lithium-induced Delayed Aging in Caenorhabditis elegans. Journal of Biological Chemistry, 2008, 283, 350-357.	1.6	166
29	Suppressors of Superoxide-H 2 O 2 Production at Site I Q of Mitochondrial Complex I Protect against Stem Cell Hyperplasia and Ischemia-Reperfusion Injury. Cell Metabolism, 2016, 24, 582-592.	7.2	162
30	Selective binding of nuclear alpha-synuclein to the PGC1alpha promoter under conditions of oxidative stress may contribute to losses in mitochondrial function: Implications for Parkinsonâ€™s disease. Free Radical Biology and Medicine, 2012, 53, 993-1003.	1.3	152
31	Intramyocellular Fatty-Acid Metabolism Plays a Critical Role in Mediating Responses to Dietary Restriction in Drosophila melanogaster. Cell Metabolism, 2012, 16, 97-103.	7.2	147
32	Limb Immobilization Induces a Coordinate Down-Regulation of Mitochondrial and Other Metabolic Pathways in Men and Women. PLoS ONE, 2009, 4, e6518.	1.1	147
33	Genomeâ€wide <scp>DNA</scp> methylation changes with age in diseaseâ€free human skeletal muscle. Aging Cell, 2014, 13, 360-366.	3.0	145
34	Mitochondrial Oxidative Stress: Physiologic Consequences and Potential for a Role in Aging. Annals of the New York Academy of Sciences, 2000, 908, 219-225.	1.8	137
35	Loss of intestinal nuclei and intestinal integrity in aging C.Âelegans. Aging Cell, 2011, 10, 699-710.	3.0	135
36	Alzheimer disease Î²-amyloid activity mimics cholesterol oxidase. Journal of Clinical Investigation, 2005, 115, 2556-2563.	3.9	125

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37	Life Span Extension via eIF4G Inhibition Is Mediated by Posttranscriptional Remodeling of Stress Response Gene Expression in C.Âelegans. Cell Metabolism, 2011, 14, 55-66.	7.2	124
38	Genomic Analysis Reveals Disruption of Striatal Neuronal Development and Therapeutic Targets in Human Huntingtonâ€™s Disease Neural Stem Cells. Stem Cell Reports, 2015, 5, 1023-1038.	2.3	117
39	Global and targeted gene expression and protein content in skeletal muscle of young men following short-term creatine monohydrate supplementation. Physiological Genomics, 2008, 32, 219-228.	1.0	116
40	Insulin-like Signaling Determines Survival during Stress via Posttranscriptional Mechanisms in C. elegans. Cell Metabolism, 2010, 12, 260-272.	7.2	113
41	Increased frequency of deletions in the mitochondrial genome with age ofCaenorhabditis elegans. Nucleic Acids Research, 1995, 23, 1419-1425.	6.5	110
42	Multi-Organ Characterization of Mitochondrial Genomic Rearrangements in Ad Libitum and Caloric Restricted Mice Show Striking Somatic Mitochondrial DNA Rearrangements with Age. Nucleic Acids Research, 1997, 25, 974-982.	6.5	110
43	A Human Protein Interaction Network Shows Conservation of Aging Processes between Human and Invertebrate Species. PLoS Genetics, 2009, 5, e1000414.	1.5	106
44	Mitochondrial biology, degenerative diseases and aging. BioFactors, 1998, 7, 187-190.	2.6	105
45	Mitochondrial DNA mutations, oxidative stress, and aging. Mechanisms of Ageing and Development, 2001, 122, 1577-1589.	2.2	103
46	Mitochondrial oxidative stress causes chromosomal instability of mouse embryonic fibroblasts. Aging Cell, 2003, 2, 277-285.	3.0	99
47	Modeling mitochondrial function in aging neurons. Trends in Neurosciences, 2004, 27, 601-606.	4.2	95
48	Adrenergic Receptors in Individual Ventricular Myocytes. Circulation Research, 2017, 120, 1103-1115.	2.0	95
49	Animal models of oxidative stress, aging, and therapeutic antioxidant interventions. International Journal of Biochemistry and Cell Biology, 2002, 34, 1395-1400.	1.2	90
50	Microarray analysis of gene expression with age in individual nematodes. Aging Cell, 2004, 3, 111-124.	3.0	90
51	mTORC1 Activation during Repeated Regeneration Impairs Somatic Stem Cell Maintenance. Cell Stem Cell, 2017, 21, 806-818.e5.	5.2	87
52	Applied Proteomics. Circulation Research, 2002, 90, 380-389.	2.0	81
53	Mouse models of mitochondrial disease, oxidative stress, and senescence. Mutation Research DNA Repair, 1999, 434, 233-242.	3.8	80
54	Mice transgenic for Alzheimer disease ?-amyloid develop lens cataracts that are rescued by antioxidant treatment. Free Radical Biology and Medicine, 2005, 38, 258-261.	1.3	77

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55	Pol IIâ€“Expressed shRNA Knocks Down Sod2 Gene Expression and Causes Phenotypes of the Gene Knockout in Mice. PLoS Genetics, 2006, 2, e10.	1.5	75
56	Detection of deletions in the mitochondrial genome ofCaenorhabditis elegans. Nucleic Acids Research, 1994, 22, 1075-1078.	6.5	73
57	Ageâ€related behaviors have distinct transcriptional profiles in CaenorhabditisÂelegans. Aging Cell, 2008, 7, 850-865.	3.0	70
58	The garlic constituent diallyl trisulfide increases the lifespan of C. elegans via skn-1 activation. Experimental Gerontology, 2011, 46, 441-452.	1.2	69
59	Pleiotropic age-dependent effects of mitochondrial dysfunction on epidermal stem cells. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10407-10412.	3.3	67
60	Therapeutics against Mitochondrial Oxidative Stress in Animal Models of Aging. Annals of the New York Academy of Sciences, 2002, 959, 330-340.	1.8	65
61	Translational Geroscience: Emphasizing function to achieve optimal longevity. Aging, 2014, 6, 718-730.	1.4	65
62	Science fact and the SENS agenda. EMBO Reports, 2005, 6, 1006-1008.	2.0	61
63	Mitochondrial Reactive Oxygen Species in Mice Lacking Superoxide Dismutase 2. Journal of Biological Chemistry, 2006, 281, 3354-3359.	1.6	58
64	Expression patterns of cardiac aging in Drosophila. Aging Cell, 2017, 16, 82-92.	3.0	50
65	Increase in mitochondrial biogenesis, oxidative stress, and glycolysis in murine lymphomas. Free Radical Biology and Medicine, 2009, 46, 387-396.	1.3	48
66	Nigrostriatal Dopaminergic Neurodegeneration in the Weaver Mouse Is Mediated via Neuroinflammation and Alleviated by Minocycline Administration. Journal of Neuroscience, 2006, 26, 11644-11651.	1.7	47
67	Dramatic age-related changes in nuclear and genome copy number in the nematode Caenorhabditis elegans. Aging Cell, 2007, 6, 179-188.	3.0	45
68	Eccentric Exercise Activates Novel Transcriptional Regulation of Hypertrophic Signaling Pathways Not Affected by Hormone Changes. PLoS ONE, 2010, 5, e10695.	1.1	39
69	Impaired spare respiratory capacity in cortical synaptosomes from Sod2 null mice. Free Radical Biology and Medicine, 2011, 50, 866-873.	1.3	34
70	Human Embryonic Stem Cells Express Elevated Levels of Multiple Pro-Apoptotic BCL-2 Family Members. PLoS ONE, 2011, 6, e28530.	1.1	34
71	cep-1/p53-dependent dysplastic pathology of the aging C. elegans gonad. Aging, 2012, 4, 256-269.	1.4	34
72	Gene expression profiling in mitochondrial disease: assessment of microarray accuracy by high-throughput Q-PCR. Mitochondrion, 2004, 4, 453-470.	1.6	29

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73	Age-related micro-RNA abundance in individual C. elegans. Aging, 2013, 5, 394-411.	1.4	29
74	No Consistent Bioenergetic Defects in Presynaptic Nerve Terminals Isolated from Mouse Models of Alzheimer's Disease. Journal of Neuroscience, 2012, 32, 16775-16784.	1.7	27
75	Microarrays as a Tool to Investigate the Biology of Aging: A Retrospective and a Look to the Future. Science of Aging Knowledge Environment: SAGE KE, 2004, 2004, re7-re7.	0.9	26
76	â€˜â€¦and C is for Clioquinolâ€™ â€“ the AÎ²Cs of Alzheimer's disease. Trends in Neurosciences, 2002, 25, 121-123.	3.2	23
77	Microarray analysis of variation in individual aging C. elegans: Approaches and challenges. Experimental Gerontology, 2006, 41, 1040-1045.	1.2	22
78	Geroscience approaches to increase healthspan and slow aging. F1000Research, 2016, 5, 785.	0.8	21
79	Long-term calorie restriction in humans is not associated with indices of delayed immunologic aging: A descriptive study. Nutrition and Healthy Aging, 2017, 4, 147-156.	0.5	20
80	Tumor Necrosis Factor Alpha-Mediated Inflammation and Remodeling of the Extracellular Matrix Underlies Aortic Stiffening Induced by the Common Chemotherapeutic Agent Doxorubicin. Hypertension, 2021, 77, 1581-1590.	1.3	20
81	Senolysis induced by 25-hydroxycholesterol targets CRYAB in multiple cell types. IScience, 2022, 25, 103848.	1.9	17
82	Proteogenomics of synaptosomal mitochondrial oxidative stress. Free Radical Biology and Medicine, 2012, 53, 1048-1060.	1.3	16
83	Superoxide produced by mitochondrial site IQ inactivates cardiac succinate dehydrogenase and induces hepatic steatosis in Sod2 knockout mice. Free Radical Biology and Medicine, 2021, 164, 223-232.	1.3	14
84	Hyperplasia, reduced E-cadherin expression, and developmental arrest in mammary glands oxidatively stressed by loss of mitochondrial superoxide dismutase. Breast, 2005, 14, 256-263.	0.9	13
85	Single Cell Transcriptional Profiling of Adult Mouse Cardiomyocytes. Journal of Visualized Experiments, 2011, , e3302.	0.2	13
86	Dietary restriction and the transcription factor clock delay eye aging to extend lifespan in Drosophila Melanogaster. Nature Communications, 2022, 13, .	5.8	12
87	Microscale fractionation facilitates detection of differentially expressed proteins in Alzheimer's disease brain samples. Electrophoresis, 2004, 25, 2557-2563.	1.3	10
88	Accelerated aging of the brain transcriptome by the common chemotherapeutic doxorubicin. Experimental Gerontology, 2021, 152, 111451.	1.2	9
89	Single cell gene expression profiling of cortical osteoblast lineage cells. Bone, 2013, 53, 174-181.	1.4	8
90	Longitudinal Functional Study of Murine Aging: A Resource for Future Study Designs. JBMR Plus, 2021, 5, e10466.	1.3	8

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91	Pharmacogenomic profiling of an oxidative stress-mediated spongiform encephalopathy. Free Radical Biology and Medicine, 2005, 39, 152-163.	1.3	7
92	Biomarker Discovery and Analysis Platform: Application to Alzheimer's Disease. BioTechniques, 2005, 39, 606-607.	0.8	4
93	Spotlight on Nematode Mitochondria in RNAi Mega-Screen. Science of Aging Knowledge Environment: SAGE KE, 2002, 2002, 18pe-18.	0.9	3
94	Uncovering the Dark Energy of Aging. Cell Systems, 2016, 3, 328-330.	2.9	2
95	The Buck Institute for Age Research. Experimental Gerontology, 2001, 36, 205-208.	1.2	1
96	Response by Simpson et al to Letter Regarding Article, â€œAdrenergic Receptors in Individual Ventricular Myocytes: the Beta-1 and Alpha-1B Are in All Cells, the Alpha-1A Is in a Subpopulation, and the Beta-2 and Beta-3 Are Mostly Absentâ€• Circulation Research, 2017, 120, e56-e57.	2.0	1
97	Free Radicals and Antioxidants in Otolaryngology. Otolaryngology - Head and Neck Surgery, 1996, 115, P157-P157.	1.1	0
98	Proteomic Analysis of Mitochondrial Proteins. International Review of Neurobiology, 2004, 61, 31-48.	0.9	0
99	Animal Models of Oxidative Stress and Aging. , 2003, , .		0