Colin Selman

List of Publications by Year
in descending order

99 papers	7,762 citations	76326 40 h-index	51608 86 g-index
103 all docs	103 docs citations	103 times ranked	10047 citing authors

#	Article	IF	Citations
1	Ribosomal Protein S6 Kinase 1 Signaling Regulates Mammalian Life Span. Science, 2009, 326, 140-144.	12.6	1,009
2	Uncoupled and surviving: individual mice with high metabolism have greater mitochondrial uncoupling and live longer. Aging Cell, 2004, 3, 87-95.	6.7	505
3	Evidence for lifespan extension and delayed ageâ€"related biomarkers in insulin receptor substrate 1 null mice. FASEB Journal, 2008, 22, 807-818.	0.5	487
4	AMPK is essential for energy homeostasis regulation and glucose sensing by POMC and AgRP neurons. Journal of Clinical Investigation, 2007, 117, 2325-2336.	8.2	445
5	Physical activity and resting metabolic rate. Proceedings of the Nutrition Society, 2003, 62, 621-634.	1.0	311
6	Oxidative damage, ageing, and life-history evolution: where now?. Trends in Ecology and Evolution, 2012, 27, 570-577.	8.7	286
7	The freeâ€radical damage theory: Accumulating evidence against a simple link of oxidative stress to ageing and lifespan. BioEssays, 2011, 33, 255-259.	2.5	216
8	The role of insulin receptor substrate 2 in hypothalamic and Î² cell function. Journal of Clinical Investigation, 2005, 115, 940-950.	8.2	209
9	Effect of pregnancy on exposure to malaria mosquitoes. Lancet, The, 2000, 355, 1972.	13.7	206
10	Birds sacrifice oxidative protection for reproduction. Proceedings of the Royal Society B: Biological Sciences, 2004, 271, S360-3.	2.6	197
11	Variation in the link between oxygen consumption and ATP production, and its relevance for animal performance. Proceedings of the Royal Society B: Biological Sciences, 2015, 282, 20151028.	2.6	187
12	Evolutionary conservation of regulated longevity assurance mechanisms. Genome Biology, 2007, 8, R132.	9.6	173
13	Oxidative stress and life histories: unresolved issues and current needs. Ecology and Evolution, 2015, 5, 5745-5757.	1.9	169
14	Living Fast, Dying When? The Link between Aging and Energetics. Journal of Nutrition, 2002, 132, 1583S-1597S.	2.9	167
15	Longevity and skeletal muscle mass: the role of IGF signalling, the sirtuins, dietary restriction and protein intake. Aging Cell, 2015, 14, 511-523.	6.7	166
16	Dominant Role of the p110Î² Isoform of PI3K over p110Î± in Energy Homeostasis Regulation by POMC and AgRP Neurons. Cell Metabolism, 2009, 10, 343-354.	16.2	149
17	Doxorubicin treatment in vivo activates caspase-12 mediated cardiac apoptosis in both male and female rats. FEBS Letters, 2004, 577, 483-490.	2.8	117
18	Exercise by lifelong voluntary wheel running reduces subsarcolemmal and interfibrillar mitochondrial hydrogen peroxide production in the heart. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2005, 289, R1564-R1572.	1.8	116

#	Article	IF	Citations
19	Coordinated multitissue transcriptional and plasma metabonomic profiles following acute caloric restriction in mice. Physiological Genomics, 2006, 27, 187-200.	2.3	109
20	Deletion of the von Hippelâ€“Lindau gene in pancreatic Î² cells impairs glucose homeostasis in mice. Journal of Clinical Investigation, 2009, 119, 125-35.	8.2	108
21	Expenditure freeze: the metabolic response of small mammals to cold environments. Ecology Letters, 2005, 8, 1326-1333.	6.4	99
22	Individuals with higher metabolic rates have lower levels of reactive oxygen species <i>in vivo</i>. Biology Letters, 2015, 11, 20150538.	2.3	94
23	Energy expenditure of calorically restricted rats is higher than predicted from their altered body composition. Mechanisms of Ageing and Development, 2005, 126, 783-793.	4.6	88
24	Replication of Extended Lifespan Phenotype in Mice with Deletion of Insulin Receptor Substrate 1. PLoS ONE, 2011, 6, e16144.	2.5	81
25	Life-long vitamin C supplementation in combination with cold exposure does not affect oxidative damage or lifespan in mice, but decreases expression of antioxidant protection genes. Mechanisms of Ageing and Development, 2006, 127, 897-904.	4.6	80
26	OXIDATIVE DAMAGE INCREASES WITH REPRODUCTIVE ENERGY EXPENDITURE AND IS REDUCED BY FOOD-SUPPLEMENTATION. Evolution; International Journal of Organic Evolution, 2012, 67, no-no.	2.3	78
27	The impact of experimentally elevated energy expenditure on oxidative stress and lifespan in the short-tailed field vole Microtus agrestis. Proceedings of the Royal Society B: Biological Sciences, 2008, 275, 1907-1916.	2.6	76
28	The consequences of acute cold exposure on protein oxidation and proteasome activity in short-tailed field voles, microtus agrestis. Free Radical Biology and Medicine, 2002, 33, 259-265.	2.9	71
29	Hypothalamic-Pituitary Axis Regulates Hydrogen Sulfide Production. Cell Metabolism, 2017, 25, 1320-1333.e5.	16.2	71
30	Mammalian models of extended healthy lifespan. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 99-107.	4.0	68
31	Caloric restriction reveals a metabolomic and lipidomic signature in liver of male mice. Aging Cell, 2014, 13, 828-837.	6.7	63
32	Decreased mitochondrial metabolic requirements in fasting animals carry an oxidative cost. Functional Ecology, 2018, 32, 2149-2157.	3.6	60
33	Interventions for age-related diseases: Shifting the paradigm. Mechanisms of Ageing and Development, 2016, 160, 69-92.	4.6	57
34	Antioxidant enzyme activities, lipid peroxidation, and DNA oxidative damage: the effects of short-term voluntary wheel running. Archives of Biochemistry and Biophysics, 2002, 401, 255-261.	3.0	54
35	The impact of acute caloric restriction on the metabolic phenotype in male C57BL/6 and DBA/2 mice. Mechanisms of Ageing and Development, 2010, 131, 111-118.	4.6	53
36	Metabotyping of Long-Lived Mice using ¹H NMR Spectroscopy. Journal of Proteome Research, 2012, 11, 2224-2235.	3.7	53

#	Article	IF	Citations
37	Comment on "Brain IRS2 Signaling Coordinates Life Span and Nutrient Homeostasis". Science, 2008, 320, 1012-1012.	12.6	48
38	Deleterious consequences of antioxidant supplementation on lifespan in a wild-derived mammal. Biology Letters, 2013, 9, 20130432.	2.3	48
39	Variation in Metabolic Rate among Individuals Is Related to Tissue-Specific Differences in Mitochondrial Leak Respiration. Physiological and Biochemical Zoology, 2016, 89, 511-523.	1.5	47
40	Short-Term Caloric Restriction and Sites of Oxygen Radical Generation in Kidney and Skeletal Muscle Mitochondria. Annals of the New York Academy of Sciences, 2004, 1019, 333-342.	3.8	42
41	Allostatic load and ageing: linking the microbiome and nutrition with age-related health. Biochemical Society Transactions, 2019, 47, 1165-1172.	3.4	41
42	Meta-analysis of gene expression in the mouse liver reveals biomarkers associated with inflammation increased early during aging. Mechanisms of Ageing and Development, 2012, 133, 467-478.	4.6	39
43	Dietary restriction increases skeletal muscle mitochondrial respiration but not mitochondrial content in C57BL/6 mice. Mechanisms of Ageing and Development, 2012, 133, 37-45.	4.6	39
44	OXIDATIVE STRESS AND THE EVOLUTION OF SEX DIFFERENCES IN LIFE SPAN AND AGEING IN THE DECORATED CRICKET,<i>GRYLLODES SIGILLATUS</i>. Evolution; International Journal of Organic Evolution, 2013, 67, 620-634.	2.3	38
45	Ageing: Itâ€™s a Dogâ€™s Life. Current Biology, 2013, 23, R451-R453.	3.9	37
46	Differences in mitochondrial efficiency explain individual variation in growth performance. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20191466.	2.6	37
47	Vitamin E supplementation and mammalian lifespan. Molecular Nutrition and Food Research, 2010, 54, 719-725.	3.3	35
48	Dietary restriction and the pursuit of effective mimetics. Proceedings of the Nutrition Society, 2014, 73, 260-270.	1.0	35
49	Extracellular Vesicles, Ageing, and Therapeutic Interventions. Cells, 2018, 7, 110.	4.1	35
50	Lifespan Modulation in Mice and the Confounding Effects of Genetic Background. Journal of Genetics and Genomics, 2014, 41, 497-503.	3.9	34
51	Inadequate food intake at high temperatures is related to depressed mitochondrial respiratory capacity. Journal of Experimental Biology, 2016, 219, 1356-62.	1.7	34
52	Effects of dietary calcium restriction and acute exercise on the antioxidant enzyme system and oxidative stress in rat diaphragm. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2004, 287, R33-R38.	1.8	33
53	Thermoregulatory responses of two mouse Mus musculus strains selectively bred for high and low food intake. Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology, 2001, 171, 661-668.	1.5	32
54	Simultaneous measurement of mitochondrial respiration and <scp>ATP</scp> production in tissue homogenates and calculation of effective P/O ratios. Physiological Reports, 2016, 4, e13007.	1.7	30

#	Article	IF	Citations
55	Microvesicles as Vehicles for Tissue Regeneration: Changing of the Guards. Current Pathobiology Reports, 2016, 4, 181-187.	3.4	29
56	Lifelong Î±-Tocopherol Supplementation Increases the Median Life Span of C57BL/6 Mice in the Cold but Has Only Minor Effects on Oxidative Damage. Rejuvenation Research, 2008, 11, 83-96.	1.8	28
57	Proteostasis and ageing: insights from longâ€lived mutant mice. Journal of Physiology, 2017, 595, 6383-6390.	2.9	27
58	Role of Central Nervous System and Ovarian Insulin Receptor Substrate 2 Signaling in Female Reproductive Function in the Mouse1. Biology of Reproduction, 2007, 76, 1045-1053.	2.7	25
59	Putting a strain on diversity. EMBO Journal, 2018, 37, .	7.8	24
60	The RCR and ATP/O Indices Can Give Contradictory Messages about Mitochondrial Efficiency. Integrative and Comparative Biology, 2018, 58, 486-494.	2.0	24
61	Hydrogen sulfide in ageing, longevity and disease. Biochemical Journal, 2021, 478, 3485-3504.	3.7	24
62	Evidence of a metabolic memory to early-life dietary restriction in male C57BL/6 mice. Longevity & Healthspan, 2012, 1, 2.	6.7	23
63	Short-term caloric restriction and regulatory proteins of apoptosis in heart, skeletal muscle and kidney of Fischer 344 rats. Biogerontology, 2003, 4, 141-147.	3.9	22
64	Plasma markers of oxidative stress are uncorrelated in a wild mammal. Ecology and Evolution, 2015, 5, 5096-5108.	1.9	22
65	The parasitic worm product ES-62 promotes health- and life-span in a high calorie diet-accelerated mouse model of ageing. PLoS Pathogens, 2020, 16, e1008391.	4.7	22
66	Aging in the wild: Insights from free-living and non-model organisms. Experimental Gerontology, 2015, 71, 1-3.	2.8	21
67	A double whammy for aging? Rapamycin extends lifespan and inhibits cancer in inbred female mice. Cell Cycle, 2012, 11, 18-18.	2.6	20
68	Marker-dependent associations among oxidative stress, growth and survival during early life in a wild mammal. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20161407.	2.6	20
69	Deletion of myeloid IRS2 enhances adipose tissue sympathetic nerve function and limits obesity. Molecular Metabolism, 2019, 20, 38-50.	6.5	18
70	Growth acceleration results in faster telomere shortening later in life. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20211118.	2.6	18
71	Increased hepatic apoptosis during short-term caloric restriction is not associated with an enhancement in caspase levels. Experimental Gerontology, 2003, 38, 897-903.	2.8	17
72	Disentangling the effect of dietary restriction on mitochondrial function using recombinant inbred mice. Molecular and Cellular Endocrinology, 2017, 455, 41-53.	3.2	15

#	Article	IF	Citations
73	Testing the Effects of DL-Alpha-Tocopherol Supplementation on Oxidative Damage, Total Antioxidant Protection and the Sex-Specific Responses of Reproductive Effort and Lifespan to Dietary Manipulation in Australian Field Crickets (Teleogryllus commodus). Antioxidants, 2015, 4, 768-792.	5.1	14
74	Chronic helminth infection burden differentially affects haematopoietic cell development while ageing selectively impairs adaptive responses to infection. Scientific Reports, 2018, 8, 3802.	3.3	14
75	Evidence that hematopoietic stem cell function is preserved during aging in long-lived S6K1 mutant mice. Oncotarget, 2016, 7, 29937-29943.	1.8	14
76	Synthetic small molecule analogues of the immunomodulatory Acanthocheilonema viteae product ES-62 promote metabolic homeostasis during obesity in a mouse model. Molecular and Biochemical Parasitology, 2019, 234, 111232.	1.1	11
77	RNA Polymerase III, Ageing and Longevity. Frontiers in Genetics, 2021, 12, 705122.	2.3	11
78	Nutritional Geometry Provides Food for Thought. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2009, 64A, 956-959.	3.6	10
79	Effects of a specific MCHR1 antagonist (GW803430) on energy budget and glucose metabolism in dietâ€induced obese mice. Obesity, 2014, 22, 681-690.	3.0	10
80	Strain-specificity in the hydrogen sulphide signalling network following dietary restriction in recombinant inbred mice. GeroScience, 2020, 42, 801-812.	4.6	10
81	Alterations in tissue aerobic capacity may play a role in premigratory fattening in shorebirds. Biology Letters, 2005, 1, 101-104.	2.3	9
82	Models of insulin signalling and longevity. Drug Discovery Today: Disease Models, 2005, 2, 249-256.	1.2	9
83	The hepatic compensatory response to elevated systemic sulfide promotes diabetes. Cell Reports, 2021, 37, 109958.	6.4	9
84	Dietary restriction in ILSXISS mice is associated with widespread changes in splicing regulatory factor expression levels. Experimental Gerontology, 2019, 128, 110736.	2.8	8
85	Photoperiodic regulation in a wild-derived mouse strain. Journal of Experimental Biology, 2020, 223, .	1.7	8
86	Common and unique transcriptional responses to dietary restriction and loss of insulin receptor substrate 1 (IRS1) in mice. Aging, 2018, 10, 1027-1052.	3.1	8
87	Mendelian randomization analyses implicate biogenesis of translation machinery in human aging. Genome Research, 2022, 32, 258-265.	5.5	7
88	Voluntary Exercise Has Only Limited Effects on Activity of Antioxidant Enzymes and Does Not Cause Oxidative Damage in a Small Mammal. Journal of Nutrition, 2002, 132, 1784S-1786S.	2.9	6
89	Measurement of mitochondrial respiration in permeabilized fish gills. Journal of Experimental Biology, 2020, 223, .	1.7	6
90	Strain-specific metabolic responses to long-term caloric restriction in female ILSXISS recombinant inbred mice. Molecular and Cellular Endocrinology, 2021, 535, 111376.	3.2	6

#	Article	IF	Citations
91	Optoelectronic tweezers for the measurement of the relative stiffness of erythrocytes. Proceedings of SPIE, 2012, , .	0.8	5
92	Longevity of insulin receptor substrate1 null mice is not associated with increased basal antioxidant protection or reduced oxidative damage. Age, 2013, 35, 647-658.	3.0	5
93	Using Doubly-Labeled Water to Measure Energy Expenditure in an Important Small Ectotherm Drosophila melanogaster. Journal of Genetics and Genomics, 2014, 41, 505-512.	3.9	5
94	Progressing the care, husbandry and management of ageing mice used in scientific studies. Laboratory Animals, 2020, 54, 225-238.	1.0	5
95	Fibroblasts derived from longâ€lived insulin receptor substrate 1 null mice are not resistant to multiple forms of stress. Aging Cell, 2014, 13, 962-964.	6.7	4
96	An atypical switch for metabolism and ageing. Nature, 2017, 542, 299-300.	27.8	2
97	Oxidative stress in wild European rabbits naturally infected with myxoma virus and rabbit haemorrhagic disease virus. European Journal of Wildlife Research, 2018, 64, 1.	1.4	2
98	Interâ€individual variation in mitochondrial phosphorylation efficiency predicts growth rates in ectotherms at high temperatures. FASEB Journal, 2022, 36, e22333.	0.5	1
99	Metabolic rate through the life-course: From the organism to the organelle. Experimental Gerontology, 2020, 140, 111059.	2.8	0