Joseph A Baur

List of Publications by Year
in descending order

112 papers	24,014 citations	22099 59 h-index	29081 104 g-index
120 all docs	120 docs citations	120 times ranked	27594 citing authors

#	Article	IF	Citations
1	Resveratrol improves health and survival of mice on a high-calorie diet. Nature, 2006, 444, 337-342.	13.7	3,882
2	Therapeutic potential of resveratrol: the in vivo evidence. Nature Reviews Drug Discovery, 2006, 5, 493-506.	21.5	3,283
3	SIRT1 Is Required for AMPK Activation and the Beneficial Effects of Resveratrol on Mitochondrial Function. Cell Metabolism, 2012, 15, 675-690.	7.2	1,251
4	Resveratrol Delays Age-Related Deterioration and Mimics Transcriptional Aspects of Dietary Restriction without Extending Life Span. Cell Metabolism, 2008, 8, 157-168.	7.2	1,060
5	Rapamycin-Induced Insulin Resistance Is Mediated by mTORC2 Loss and Uncoupled from Longevity. Science, 2012, 335, 1638-1643.	6.0	1,022
6	SIRT1 deacetylase protects against neurodegeneration in models for Alzheimer's disease and amyotrophic lateral sclerosis. EMBO Journal, 2007, 26, 3169-3179.	3.5	982
7	Nutrient-Sensitive Mitochondrial NAD+ Levels Dictate Cell Survival. Cell, 2007, 130, 1095-1107.	13.5	855
8	Rapamycin, But Not Resveratrol or Simvastatin, Extends Life Span of Genetically Heterogeneous Mice. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2011, 66A, 191-201.	1.7	774
9	Foxp3 Reprograms T Cell Metabolism to Function in Low-Glucose, High-Lactate Environments. Cell Metabolism, 2017, 25, 1282-1293.e7.	7.2	741
10	NAD+ Intermediates: The Biology and Therapeutic Potential of NMN and NR. Cell Metabolism, 2018, 27, 513-528.	7.2	605
11	Resveratrol and health â€“ A comprehensive review of human clinical trials. Molecular Nutrition and Food Research, 2011, 55, 1129-1141.	1.5	468
12	Rapalogs and mTOR inhibitors as anti-aging therapeutics. Journal of Clinical Investigation, 2013, 123, 980-989.	3.9	434
13	A branched-chain amino acid metabolite drives vascular fatty acid transport and causes insulin resistance. Nature Medicine, 2016, 22, 421-426.	15.2	421
14	What Is New for an Old Molecule? Systematic Review and Recommendations on the Use of Resveratrol. PLoS ONE, 2011, 6, e19881.	1.1	375
15	Quantitative Analysis of NAD Synthesis-Breakdown Fluxes. Cell Metabolism, 2018, 27, 1067-1080.e5.	7.2	363
16	Effects of Sex, Strain, and Energy Intake on Hallmarks of Aging in Mice. Cell Metabolism, 2016, 23, 1093-1112.	7.2	360
17	Are sirtuins viable targets for improving healthspan and lifespan?. Nature Reviews Drug Discovery, 2012, 11, 443-461.	21.5	339
18	Loss of NAD Homeostasis Leads to Progressive and Reversible Degeneration of Skeletal Muscle. Cell Metabolism, 2016, 24, 269-282.	7.2	273

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19	SRT1720 improves survival and healthspan of obese mice. Scientific Reports, 2011, 1, 70.	1.6	249
20	Nicotinamide Improves Aspects of Healthspan, but Not Lifespan, in Mice. Cell Metabolism, 2018, 27, 667-676.e4.	7.2	242
21	NAD+ metabolism governs the proinflammatory senescence-associated secretome. Nature Cell Biology, 2019, 21, 397-407.	4.6	232
22	Essential role of mitochondrial energy metabolism in Foxp3 ⁺ Tâ€regulatory cell function and allograft survival. FASEB Journal, 2015, 29, 2315-2326.	0.2	213
23	Resveratrol Improves Adipose Insulin Signaling and Reduces the Inflammatory Response in Adipose Tissue of Rhesus Monkeys on High-Fat, High-Sugar Diet. Cell Metabolism, 2013, 18, 533-545.	7.2	212
24	<scp>SRT</scp> 2104 extends survival of male mice on a standard diet and preserves bone and muscle mass. Aging Cell, 2014, 13, 787-796.	3.0	208
25	Resveratrol, sirtuins, and the promise of a DR mimetic. Mechanisms of Ageing and Development, 2010, 131, 261-269.	2.2	188
26	Resveratrol Prevents High Fat/Sucrose Diet-Induced Central Arterial Wall Inflammation and Stiffening in Nonhuman Primates. Cell Metabolism, 2014, 20, 183-190.	7.2	186
27	The adverse metabolic effects of branched-chain amino acids are mediated by isoleucine and valine. Cell Metabolism, 2021, 33, 905-922.e6.	7.2	183
28	Evaluation of Resveratrol, Green Tea Extract, Curcumin, Oxaloacetic Acid, and Medium-Chain Triglyceride Oil on Life Span of Genetically Heterogeneous Mice. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2013, 68, 6-16.	1.7	182
29	Nicotinamide mononucleotide (NMN) supplementation rescues cerebromicrovascular endothelial function and neurovascular coupling responses and improves cognitive function in aged mice. Redox Biology, 2019, 24, 101192.	3.9	181
30	An Alternate Splicing Variant of the Human Telomerase Catalytic Subunit Inhibits Telomerase Activity. Neoplasia, 2000, 2, 433-440.	2.3	178
31	Clock Regulation of Metabolites Reveals Coupling between Transcription and Metabolism. Cell Metabolism, 2017, 25, 961-974.e4.	7.2	162
32	SLC25A51 is a mammalian mitochondrial NAD+ transporter. Nature, 2020, 588, 174-179.	13.7	158
33	CD38 ecto-enzyme in immune cells is induced during aging and regulates NAD+ and NMN levels. Nature Metabolism, 2020, 2, 1284-1304.	5.1	157
34	Histone deacetylase 3 prepares brown adipose tissue for acute thermogenic challenge. Nature, 2017, 546, 544-548.	13.7	149
35	Inhibition of mammalian S6 kinase by resveratrol suppresses autophagy. Aging, 2009, 1, 515-528.	1.4	146
36	A PRDM16-Driven Metabolic Signal from Adipocytes Regulates Precursor Cell Fate. Cell Metabolism, 2019, 30, 174-189.e5.	7.2	141

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37	Resveratrol and life extension. Annals of the New York Academy of Sciences, 2011, 1215, 138-143.	1.8	139
38	Lactate Limits T Cell Proliferation via the NAD(H) Redox State. Cell Reports, 2020, 33, 108500.	2.9	135
39	Biochemical effects of SIRT1 activators. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1626-1634.	1.1	126
40	Extended Wakefulness: Compromised Metabolics in and Degeneration of Locus Ceruleus Neurons. Journal of Neuroscience, 2014, 34, 4418-4431.	1.7	125
41	Resveratrol activates duodenal Sirt1 to reverse insulin resistance in rats through a neuronal network. Nature Medicine, 2015, 21, 498-505.	15.2	122
42	Resveratrol for primary prevention of atherosclerosis: Clinical trial evidence for improved gene expression in vascular endothelium. International Journal of Cardiology, 2013, 166, 246-248.	0.8	118
43	Nicotinamide adenine dinucleotide is transported into mammalian mitochondria. ELife, 2018, 7, .	2.8	111
44	Telomere Dysfunction Induces Sirtuin Repression that Drives Telomere-Dependent Disease. Cell Metabolism, 2019, 29, 1274-1290.e9.	7.2	106
45	Design and synthesis of compounds that extend yeast replicative lifespan. Aging Cell, 2007, 6, 35-43.	3.0	102
46	The tumor suppressor FLCN mediates an alternate mTOR pathway to regulate browning of adipose tissue. Genes and Development, 2016, 30, 2551-2564.	2.7	100
47	Mitochondrial Protection by Resveratrol. Exercise and Sport Sciences Reviews, 2011, 39, 128-132.	1.6	99
48	Characterization of ataxia telangiectasia fibroblasts with extended life-span through telomerase expression. Oncogene, 2001, 20, 278-288.	2.6	92
49	Nicotinamide adenine dinucleotide biosynthesis promotes liver regeneration. Hepatology, 2017, 65, 616-630.	3.6	87
50	Challenges of Translating Basic Research Into Therapeutics: Resveratrol as an Example. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2012, 67A, 158-167.	1.7	85
51	Age-related NAD+ decline. Experimental Gerontology, 2020, 134, 110888.	1.2	84
52	Increasing NAD Synthesis in Muscle via Nicotinamide Phosphoribosyltransferase Is Not Sufficient to Promote Oxidative Metabolism. Journal of Biological Chemistry, 2015, 290, 1546-1558.	1.6	79
53	Purinergic glio-endothelial coupling during neuronal activity: role of P2Y₁ receptors and eNOS in functional hyperemia in the mouse somatosensory cortex. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H1837-H1845.	1.5	74
54	Young and old genetically heterogeneous <scp>HET</scp>3 mice on a rapamycin diet are glucose intolerant but insulin sensitive. Aging Cell, 2013, 12, 712-718.	3.0	70

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55	Rapamycin has a biphasic effect on insulin sensitivity in C2C12 myotubes due to sequential disruption of mTORC1 and mTORC2. Frontiers in Genetics, 2012, 3, 177.	1.1	68
56	Role of endothelial NAD⁺deficiency in age-related vascular dysfunction. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1253-H1266.	1.5	68
57	Rapamycin Blocks Induction of the Thermogenic Program in White Adipose Tissue. Diabetes, 2016, 65, 927-941.	0.3	67
58	Dietary Restriction: Standing Up for Sirtuins. Science, 2010, 329, 1012-1013.	6.0	63
59	Rapamycin-induced metabolic defects are reversible in both lean and obese mice. Aging, 2014, 6, 742-754.	1.4	62
60	Resveratrol Rescues Kidney Mitochondrial Function Following Hemorrhagic Shock. Shock, 2015, 44, 173-180.	1.0	58
61	Blockade of MCU-Mediated Ca2+ Uptake Perturbs Lipid Metabolism via PP4-Dependent AMPK Dephosphorylation. Cell Reports, 2019, 26, 3709-3725.e7.	2.9	58
62	Control of Gluconeogenesis by Metformin: Does Redox Trump Energy Charge?. Cell Metabolism, 2014, 20, 197-199.	7.2	57
63	NAD+ flux is maintained in aged mice despite lower tissue concentrations. Cell Systems, 2021, 12, 1160-1172.e4.	2.9	51
64	Hypothalamic mTORC2 is essential for metabolic health and longevity. Aging Cell, 2019, 18, e13014.	3.0	46
65	Rapamycin doses sufficient to extend lifespan do not compromise muscle mitochondrial content or endurance. Aging, 2013, 5, 539-550.	1.4	46
66	Aging and sleep deprivation induce the unfolded protein response in the pancreas: implications for metabolism. Aging Cell, 2014, 13, 131-141.	3.0	45
67	Primary Respiratory Chain Disease Causes Tissue-Specific Dysregulation of the Global Transcriptome and Nutrient-Sensing Signaling Network. PLoS ONE, 2013, 8, e69282.	1.1	44
68	mTOR: more targets of resveratrol?. Expert Reviews in Molecular Medicine, 2013, 15, e10.	1.6	37
69	Nicotinamide mononucleotide preserves mitochondrial function and increases survival in hemorrhagic shock. JCI Insight, 2018, 3, .	2.3	35
70	The leptin sensitizer celastrol reduces ageâ€associated obesity and modulates behavioral rhythms. Aging Cell, 2019, 18, e12874.	3.0	31
71	FoxA-dependent demethylation of DNA initiates epigenetic memory of cellular identity. Developmental Cell, 2021, 56, 602-612.e4.	3.1	30
72	What is Xenohormesis?. American Journal of Pharmacology and Toxicology, 2008, 3, 152-159.	0.7	28

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73	Singleâ€Voxel ¹H MR spectroscopy of cerebral nicotinamide adenine dinucleotide (NAD⁺) in humans at 7T using a 32â€channel volume coil. Magnetic Resonance in Medicine, 2020, 83, 806-814.	1.9	26
74	Aging and drug discovery. Aging, 2018, 10, 3079-3088.	1.4	25
75	HDAC3 controls male fertility through enzyme-independent transcriptional regulation at the meiotic exit of spermatogenesis. Nucleic Acids Research, 2021, 49, 5106-5123.	6.5	25
76	Circadian REV-ERBs repress E4bp4 to activate NAMPT-dependent NAD+ biosynthesis and sustain cardiac function. , 2022, 1, 45-58.		25
77	Resveratrol ameliorates mitochondrial dysfunction but increases the risk of hypoglycemia following hemorrhagic shock. Journal of Trauma and Acute Care Surgery, 2014, 77, 926-933.	1.1	20
78	Nicotinamide Mononucleotide Prevents Cisplatin-Induced Cognitive Impairments. Cancer Research, 2021, 81, 3727-3737.	0.4	20
79	Kynurenine induces T cell fat catabolism and has limited suppressive effects in vivo. EBioMedicine, 2021, 74, 103734.	2.7	20
80	mTORC1 restrains adipocyte lipolysis to prevent systemic hyperlipidemia. Molecular Metabolism, 2020, 32, 136-147.	3.0	19
81	Rapamycin maintains NAD+/NADH redox homeostasis in muscle cells. Aging, 2020, 12, 17786-17799.	1.4	19
82	Mitochondrial genome sequence analysis: A custom bioinformatics pipeline substantially improves Affymetrix MitoChip v2.0 call rate and accuracy. BMC Bioinformatics, 2011, 12, 402.	1.2	18
83	Autophagy mitigates ethanol-induced mitochondrial dysfunction and oxidative stress in esophageal keratinocytes. PLoS ONE, 2020, 15, e0239625.	1.1	18
84	Conditional ablation of <i>Raptor</i> in the male germline causes infertility due to meiotic arrest and impaired inactivation of sex chromosomes. FASEB Journal, 2017, 31, 3934-3949.	0.2	16
85	SIRT3 is required for liver regeneration but not for the beneficial effect of nicotinamide riboside. JCI Insight, 2021, 6, .	2.3	16
86	Accumulation of 3-hydroxytetradecenoic acid: Cause or corollary of glucolipotoxic impairment of pancreatic Î²-cell bioenergetics?. Molecular Metabolism, 2015, 4, 926-939.	3.0	15
87	Optical Redox Imaging of Fixed Unstained Muscle Slides Reveals Useful Biological Information. Molecular Imaging and Biology, 2019, 21, 417-425.	1.3	14
88	Supplemental arginine vasopressin during the resuscitation of severe hemorrhagic shock preserves renal mitochondrial function. PLoS ONE, 2017, 12, e0186339.	1.1	13
89	Increased mTOR activity and metabolic efficiency in mouse and human cells containing the African-centric tumor-predisposing p53 variant Pro47Ser. ELife, 2020, 9, .	2.8	12
90	Loss of FOXO transcription factors in the liver mitigates stress-induced hyperglycemia. Molecular Metabolism, 2021, 51, 101246.	3.0	10

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91	The grapes and wrath: using resveratrol to treat the pathophysiology of hemorrhagic shock. Annals of the New York Academy of Sciences, 2017, 1403, 70-81.	1.8	9
92	Oral nitrite restores age-dependent phenotypes in eNOS-null mice. JCI Insight, 2018, 3, .	2.3	9
93	Tissue metabolic profiling shows that saccharopine accumulates during renal ischemic-reperfusion injury, while kynurenine and itaconate accumulate in renal allograft rejection. Metabolomics, 2020, 16, 65.	1.4	8
94	NAD+ metabolism and cardiometabolic health: the human evidence. Cardiovascular Research, 2021, 117, e106-e109.	1.8	7
95	Effect of Interleukin-15 Receptor Alpha Ablation on the Metabolic Responses to Moderate Exercise Simulated by in vivo Isometric Muscle Contractions. Frontiers in Physiology, 2019, 10, 1439.	1.3	5
96	Pharmacologic Means of Extending Lifespan. , 2012, s4, .		5
97	Nicotinamide Riboside Improves Cardiac Function and Prolongs Survival After Disruption of the Cardiomyocyte Clock. Frontiers in Molecular Medicine, 2022, 2, .	0.6	5
98	Spontaneous reactivation of a silent telomeric transgene in a human cell line. Chromosoma, 2004, 112, 240-246.	1.0	4
99	Two-Photon Autofluorescence Imaging of Fixed Tissues: Feasibility and Potential Values for Biomedical Applications. Advances in Experimental Medicine and Biology, 2020, 1232, 375-381.	0.8	4
100	Meeting Report: Aging Research and Drug Discovery. Aging, 2022, 14, 530-543.	1.4	4
101	Longevity pathways in stress resistance: targeting NAD and sirtuins to treat the pathophysiology of hemorrhagic shock. GeroScience, 2021, 43, 1217-1228.	2.1	3
102	Thermogenic T cells: a cell therapy for obesity?. American Journal of Physiology - Cell Physiology, 2022, 322, C1085-C1094.	2.1	3
103	Obesity: Do Grapes Hold the Answer?. Pediatric Research, 2007, 61, 633-633.	1.1	2
104	A NEET Way to Impair Mitochondrial Function in Î±- and Î²-Cells. Diabetes, 2016, 65, 1484-1486.	0.3	2
105	Imaging Redox State in Mouse Muscles of Different Ages. Advances in Experimental Medicine and Biology, 2017, 977, 51-57.	0.8	2
106	optical redox imaging of fixed unstained tissue slides to identify biomarkers for breast cancer diagnosis/prognosis: feasibility study. , 2018, 10472, .		1
107	mTOR signaling in adipose tissue influences systemic lipid metabolism. FASEB Journal, 2018, 32, 536.8.	0.2	0
108	Reducing NAD(H) to amplify rhythms. Nature Metabolism, 2021, 3, 1589-1590.	5.1	0

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109	Title is missing!. , 2020, 15, e0239625.		0
110	Title is missing!. , 2020, 15, e0239625.		0
111	Title is missing!. , 2020, 15, e0239625.		0
112	Title is missing!. , 2020, 15, e0239625.		0