

# Benjamin F Miller

## List of Publications by Year in descending order

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Version: 2024-02-01

76  
papers

3,353  
citations

159585

30  
h-index

161849

54  
g-index

80  
all docs

80  
docs citations

80  
times ranked

3399  
citing authors

#	ARTICLE	IF	CITATIONS
1	Coordinated collagen and muscle protein synthesis in human patella tendon and quadriceps muscle after exercise. <i>Journal of Physiology</i> , 2005, 567, 1021-1033.	2.9	469
2	Longer lifespan in male mice treated with a weakly estrogenic agonist, an antioxidant, an $\alpha$ -glucosidase inhibitor or a Nrf2 inducer. <i>Aging Cell</i> , 2016, 15, 872-884.	6.7	277
3	Tendon collagen synthesis at rest and after exercise in women. <i>Journal of Applied Physiology</i> , 2007, 102, 541-546.	2.5	135
4	Metformin inhibits mitochondrial adaptations to aerobic exercise training in older adults. <i>Aging Cell</i> , 2019, 18, e12880.	6.7	135
5	Greater muscle protein synthesis and mitochondrial biogenesis in males compared with females during sprint interval training. <i>FASEB Journal</i> , 2014, 28, 2705-2714.	0.5	128
6	A comprehensive assessment of mitochondrial protein synthesis and cellular proliferation with age and caloric restriction. <i>Aging Cell</i> , 2012, 11, 150-161.	6.7	117
7	Long-term synthesis rates of skeletal muscle DNA and protein are higher during aerobic training in older humans than in sedentary young subjects but are not altered by protein supplementation. <i>FASEB Journal</i> , 2011, 25, 3240-3249.	0.5	114
8	Mitochondria as a Target for Mitigating Sarcopenia. <i>Frontiers in Physiology</i> , 2018, 9, 1883.	2.8	96
9	No effect of menstrual cycle on myofibrillar and connective tissue protein synthesis in contracting skeletal muscle. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2006, 290, E163-E168.	3.5	89
10	Assessment of Mitochondrial Biogenesis and mTORC1 Signaling During Chronic Rapamycin Feeding in Male and Female Mice. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2013, 68, 1493-1501.	3.6	84
11	Circulating protein synthesis rates reveal skeletal muscle proteome dynamics. <i>Journal of Clinical Investigation</i> , 2015, 126, 288-302.	8.2	72
12	A perspective on the determination of mitochondrial biogenesis. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2012, 302, E496-E499.	3.5	71
13	Mechanisms of In Vivo Ribosome Maintenance Change in Response to Nutrient Signals. <i>Molecular and Cellular Proteomics</i> , 2017, 16, 243-254.	3.8	67
14	Necroptosis contributes to chronic inflammation and fibrosis in aging liver. <i>Aging Cell</i> , 2021, 20, e13512.	6.7	66
15	Muscle-specific changes in protein synthesis with aging and reloading after disuse atrophy. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2019, 10, 1195-1209.	7.3	60
16	Modeling the contribution of individual proteins to mixed skeletal muscle protein synthetic rates over increasing periods of label incorporation. <i>Journal of Applied Physiology</i> , 2015, 118, 655-661.	2.5	58
17	Enhanced skeletal muscle regrowth and remodelling in massaged and contralateral non-massaged hindlimb. <i>Journal of Physiology</i> , 2018, 596, 83-103.	2.9	56
18	Skeletal Muscle Mitochondrial Protein Synthesis and Respiration Increase With Low-Load Blood Flow Restricted as Well as High-Load Resistance Training. <i>Frontiers in Physiology</i> , 2018, 9, 1796.	2.8	55

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19	Calorie Restriction Does Not Increase Short-term or Long-term Protein Synthesis. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2013, 68, 530-538.	3.6	49
20	The measurement of protein synthesis for assessing proteostasis in studies of slowed aging. <i>Ageing Research Reviews</i> , 2014, 18, 106-111.	10.9	46
21	Long-lived Snell dwarf mice display increased proteostatic mechanisms that are not dependent on decreased mTORC1 activity. <i>Aging Cell</i> , 2015, 14, 474-482.	6.7	45
22	CORP: The use of deuterated water for the measurement of protein synthesis. <i>Journal of Applied Physiology</i> , 2020, 128, 1163-1176.	2.5	42
23	The ketogenic diet preserves skeletal muscle with aging in mice. <i>Aging Cell</i> , 2021, 20, e13322.	6.7	42
24	Influence of Nrf2 activators on subcellular skeletal muscle protein and DNA synthesis rates after 6 weeks of milk protein feeding in older adults. <i>GeroScience</i> , 2017, 39, 175-186.	4.6	41
25	The rigorous study of exercise adaptations: why mRNA might not be enough. <i>Journal of Applied Physiology</i> , 2016, 121, 594-596.	2.5	40
26	Dietary Methionine Restriction Regulates Liver Protein Synthesis and Gene Expression Independently of Eukaryotic Initiation Factor 2 Phosphorylation in Mice. <i>Journal of Nutrition</i> , 2017, 147, 1031-1040.	2.9	39
27	Long-lived crowded-litter mice have an age-dependent increase in protein synthesis to DNA synthesis ratio and mTORC1 substrate phosphorylation. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2014, 307, E813-E821.	3.5	36
28	Hematological and acid-base changes in men during prolonged exercise with and without sodium-lactate infusion. <i>Journal of Applied Physiology</i> , 2005, 98, 856-865.	2.5	35
29	Impact of dairy protein during limb immobilization and recovery on muscle size and protein synthesis; a randomized controlled trial. <i>Journal of Applied Physiology</i> , 2018, 124, 717-728.	2.5	35
30	Six Weeks of Low-Load Blood Flow Restricted and High-Load Resistance Exercise Training Produce Similar Increases in Cumulative Myofibrillar Protein Synthesis and Ribosomal Biogenesis in Healthy Males. <i>Frontiers in Physiology</i> , 2019, 10, 649.	2.8	34
31	Effect of Blood Flow Restricted Resistance Exercise and Remote Ischemic Conditioning on Functional Capacity and Myocellular Adaptations in Patients With Heart Failure. <i>Circulation: Heart Failure</i> , 2019, 12, e006427.	3.9	33
32	A viewpoint on considering physiological principles to study stress resistance and resilience with aging. <i>Ageing Research Reviews</i> , 2017, 38, 1-5.	10.9	32
33	Ribosome biogenesis and degradation regulate translational capacity during muscle disuse and reloading. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2021, 12, 130-143.	7.3	32
34	Targeting mitochondrial function and proteostasis to mitigate dynapenia. <i>European Journal of Applied Physiology</i> , 2018, 118, 1-9.	2.5	31
35	Cancer cachexia in a mouse model of oxidative stress. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2020, 11, 1688-1704.	7.3	31
36	A Novel Stable Isotope Approach Demonstrates Surprising Degree of Age-Related Decline in Skeletal Muscle Collagen Proteostasis. <i>Function</i> , 2021, 2, zqab028.	2.3	30

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37	Mitochondrial proteostasis as a shared characteristic of slowed aging: the importance of considering cell proliferation. <i>Journal of Physiology</i> , 2017, 595, 6401-6407.	2.9	29
38	Short-term Calorie Restriction and 17 $\beta$ -Estradiol Administration Elicit Divergent Effects on Proteostatic Processes and Protein Content in Metabolically Active Tissues. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2020, 75, 849-857.	3.6	28
39	Taming expectations of metformin as a treatment to extend healthspan. <i>GeroScience</i> , 2019, 41, 101-108.	4.6	27
40	Glutathione as a mediator of cartilage oxidative stress resistance and resilience during aging and osteoarthritis. <i>Connective Tissue Research</i> , 2020, 61, 34-47.	2.3	27
41	Inducible cell-specific mouse models for paired epigenetic and transcriptomic studies of microglia and astroglia. <i>Communications Biology</i> , 2020, 3, 693.	4.4	27
42	Massage as a mechanotherapy promotes skeletal muscle protein and ribosomal turnover but does not mitigate muscle atrophy during disuse in adult rats. <i>Acta Physiologica</i> , 2020, 229, e13460.	3.8	27
43	$\beta$ -Adrenergic receptor blockade blunts postexercise skeletal muscle mitochondrial protein synthesis rates in humans. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2011, 301, R327-R334.	1.8	25
44	Molecular changes associated with spinal cord aging. <i>GeroScience</i> , 2020, 42, 765-784.	4.6	25
45	Physiologic Responses to Dietary Sulfur Amino Acid Restriction in Mice Are Influenced by Atf4 Status and Biological Sex. <i>Journal of Nutrition</i> , 2021, 151, 785-799.	2.9	24
46	Differential effects of vitamin C or protandim on skeletal muscle adaptation to exercise. <i>Journal of Applied Physiology</i> , 2018, 125, 661-671.	2.5	22
47	Skeletal muscle mitochondrial protein synthesis and respiration in response to the energetic stress of an ultra-endurance race. <i>Journal of Applied Physiology</i> , 2017, 123, 1516-1524.	2.5	21
48	Long-term rates of mitochondrial protein synthesis are increased in mouse skeletal muscle with high-fat feeding regardless of insulin-sensitizing treatment. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2017, 313, E552-E562.	3.5	21
49	Sex differences in changes of protein synthesis with rapamycin treatment are minimized when metformin is added to rapamycin. <i>GeroScience</i> , 2021, 43, 809-828.	4.6	21
50	Long-term aerobic exercise preserves muscle mass and function with age. <i>Current Opinion in Physiology</i> , 2019, 10, 70-74.	1.8	18
51	Serum extracellular vesicle miR-203a-3p content is associated with skeletal muscle mass and protein turnover during disuse atrophy and regrowth. <i>American Journal of Physiology - Cell Physiology</i> , 2020, 319, C419-C431.	4.6	18
52	Brain Protein Synthesis Rates in the UM-HET3 Mouse Following Treatment With Rapamycin or Rapamycin With Metformin. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2020, 75, 40-49.	3.6	17
53	Exercise-Pharmacology Interactions: Metformin, Statins, and Healthspan. <i>Physiology</i> , 2020, 35, 338-347.	3.1	15
54	Determining the contributions of protein synthesis and breakdown to muscle atrophy requires non-steady-state equations. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2021, 12, 1764-1775.	7.3	15

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55	The combination of exercise training and sodium-glucose cotransporter-2 inhibition improves glucose tolerance and exercise capacity in a rodent model of type 2 diabetes. <i>Metabolism: Clinical and Experimental</i> , 2019, 97, 68-80.	3.4	14
56	Differential Effects of Rapamycin and Metformin in Combination With Rapamycin on Mechanisms of Proteostasis in Cultured Skeletal Myotubes. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2020, 75, 32-39.	3.6	13
57	Utilization of biomarkers as predictors of skeletal muscle mitochondrial content after physiological intervention and in clinical settings. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2020, 318, E886-E889.	3.5	13
58	Mitochondrial adaptations to exercise do not require Bcl2-mediated autophagy but occur with BNIP3/Parkin activation. <i>FASEB Journal</i> , 2020, 34, 4602-4618.	0.5	12
59	Assessment of protein synthesis in highly aerobic canine species at the onset and during exercise training. <i>Journal of Applied Physiology</i> , 2015, 118, 811-817.	2.5	11
60	Tumor burden negatively impacts protein turnover as a proteostatic process in non-cancerous liver, heart, and muscle, but not brain. <i>Journal of Applied Physiology</i> , 2021, 131, 72-82.	2.5	8
61	An In Vivo Stable Isotope Labeling Method to Investigate Individual Matrix Protein Synthesis, Ribosomal Biogenesis, and Cellular Proliferation in Murine Articular Cartilage. <i>Function</i> , 2022, 3, zqac008.	2.3	8
62	Muscle from aged rats is resistant to mechanotherapy during atrophy and reloading. <i>GeroScience</i> , 2021, 43, 65-83.	4.6	7
63	Massage as a Mechanotherapy for Skeletal Muscle. <i>Exercise and Sport Sciences Reviews</i> , 2021, 49, 107-114.	3.0	7
64	Age-Related Susceptibility to Muscle Damage Following Mechanotherapy in Rats Recovering From Disuse Atrophy. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2021, 76, 2132-2140.	3.6	6
65	Short-term changes in diet composition do not affect in vivo hepatic protein synthesis in rats. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2018, 314, E241-E250.	3.5	5
66	Cognitive function is preserved in aged mice following long-term $\beta$ -hydroxy $\beta$ -methylbutyrate supplementation. <i>Nutritional Neuroscience</i> , 2020, 23, 170-182.	3.1	5
67	Mechanotherapy Reprograms Aged Muscle Stromal Cells to Remodel the Extracellular Matrix during Recovery from Disuse. <i>Function</i> , 2022, 3, zqac015.	2.3	4
68	Systemic delivery of a mitochondria targeted antioxidant partially preserves limb muscle mass and grip strength in response to androgen deprivation. <i>Molecular and Cellular Endocrinology</i> , 2021, 535, 111391.	3.2	3
69	Antecedent Metabolic Health and Metformin (ANTHEM) Aging Study: Rationale and Study Design for a Randomized Controlled Trial. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2022, 77, 2373-2377.	3.6	3
70	Oklahoma Nathan Shock Aging Center " assessing the basic biology of aging from genetics to protein and function. <i>GeroScience</i> , 2021, 43, 2183-2203.	4.6	2
71	Assessing the Dynamic Mitochondrial Fission and Fusion Events in Skeletal Muscle <i>in vivo</i> . <i>FASEB Journal</i> , 2021, 35, .	0.5	0
72	Heterochronic Plasma Transfer Alters Proteostatic Maintenance in Skeletal Muscle. <i>FASEB Journal</i> , 2021, 35, .	0.5	0

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73	Mechanotherapy does not Enhance Recovery Following Muscle Disuse Atrophy in Female Rats. FASEB Journal, 2022, 36, .	0.5	0
74	Myonuclei Can Replicate DNA. FASEB Journal, 2022, 36, .	0.5	0
75	Intrinsic Mitochondrial Function Impacts the Outcomes of Metformin Treatment on Skeletal Muscle Mitochondrial Morphology in Aged Rat. FASEB Journal, 2022, 36, .	0.5	0
76	Impaired Proteostasis, not Protein Synthesis, Limits Recovery of Aged Skeletal Muscle After Disuse Atrophy. FASEB Journal, 2022, 36, .	0.5	0