Donald K Layman

List of Publications by Year
in descending order

70 papers	4,321 citations	159585 30 h-index	155660 55 g-index
71 all docs	71 docs citations	71 times ranked	4299 citing authors

#	Article	IF	Citations
1	A Reduced Ratio of Dietary Carbohydrate to Protein Improves Body Composition and Blood Lipid Profiles during Weight Loss in Adult Women. Journal of Nutrition, 2003, 133, 411-417.	2.9	451
2	The Role of Leucine in Weight Loss Diets and Glucose Homeostasis. Journal of Nutrition, 2003, 133, 261S-267S.	2.9	307
3	Dietary Protein Distribution Positively Influences 24-h Muscle Protein Synthesis in Healthy Adults. Journal of Nutrition, 2014, 144, 876-880.	2.9	290
4	Dietary Protein and Exercise Have Additive Effects on Body Composition during Weight Loss in Adult Women. Journal of Nutrition, 2005, 135, 1903-1910.	2.9	265
5	Potential Importance of Leucine in Treatment of Obesity and the Metabolic Syndrome. Journal of Nutrition, 2006, 136, 319S-323S.	2.9	262
6	Leucine Regulates Translation Initiation of Protein Synthesis in Skeletal Muscle after Exercise. Journal of Nutrition, 2006, 136, 533S-537S.	2.9	228
7	Amount and type of protein influences bone health. American Journal of Clinical Nutrition, 2008, 87, 1567S-1570S.	4.7	204
8	Applications for Î±-lactalbumin in human nutrition. Nutrition Reviews, 2018, 76, 444-460.	5.8	186
9	Dietary Protein Impact on Glycemic Control during Weight Loss. Journal of Nutrition, 2004, 134, 968S-973S.	2.9	164
10	A Moderate-Protein Diet Produces Sustained Weight Loss and Long-Term Changes in Body Composition and Blood Lipids in Obese Adults. Journal of Nutrition, 2009, 139, 514-521.	2.9	161
11	Increased Dietary Protein Modifies Glucose and Insulin Homeostasis in Adult Women during Weight Loss. Journal of Nutrition, 2003, 133, 405-410.	2.9	157
12	The Leucine Content of a Complete Meal Directs Peak Activation but Not Duration of Skeletal Muscle Protein Synthesis and Mammalian Target of Rapamycin Signaling in Rats. Journal of Nutrition, 2009, 139, 1103-1109.	2.9	139
13	Protein in optimal health: heart disease and type 2 diabetes. American Journal of Clinical Nutrition, 2008, 87, 1571S-1575S.	4.7	113
14	Dietary Guidelines should reflect new understandings about adult protein needs. Nutrition and Metabolism, 2009, 6, 12.	3.0	100
15	Defining meal requirements for protein to optimize metabolic roles of amino acids. American Journal of Clinical Nutrition, 2015, 101, 1330S-1338S.	4.7	100
16	Protein Quantity and Quality at Levels above the RDA Improves Adult Weight Loss. Journal of the American College of Nutrition, 2004, 23, 631S-636S.	1.8	94
17	A high protein moderate carbohydrate diet fed at discrete meals reduces early progression of N-methyl-N-nitrosourea-induced breast tumorigenesis in rats. Nutrition and Metabolism, 2010, 7, 1.	3.0	91
18	Leucine content of dietary proteins is a determinant of postprandial skeletal muscle protein synthesis in adult rats. Nutrition and Metabolism, 2012, 9, 67.	3.0	90

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19	The Effects of a Higher Protein Intake During Energy Restriction on Changes in Body Composition and Physical Function in Older Women. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2011, 66A, 1218-1225.	3.6	81
20	Role of Leucine in Protein Metabolism During Exercise and Recovery. Applied Physiology, Nutrition, and Metabolism, 2002, 27, 646-662.	1.7	80
21	The effect of age on protein synthesis and ribosome aggregation to messenger RNA in rat liver. Archives of Biochemistry and Biophysics, 1976, 173, 246-254.	3.0	61
22	Leucine or carbohydrate supplementation reduces AMPK and eEF2 phosphorylation and extends postprandial muscle protein synthesis in rats. American Journal of Physiology - Endocrinology and Metabolism, 2011, 301, E1236-E1242.	3.5	59
23	Moderate carbohydrate, moderate protein weight loss diet reduces cardiovascular disease risk compared to high carbohydrate, low protein diet in obese adults: A randomized clinical trial. Nutrition and Metabolism, 2008, 5, 30.	3.0	52
24	Leucine reduces the duration of insulin-induced PI 3-kinase activity in rat skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2005, 288, E86-E91.	3.5	48
25	Glutathione Peroxidase Activity in Iron-Deficient Rats. Journal of Nutrition, 1981, 111, 194-200.	2.9	43
26	Response of Glutathione Peroxidase and Catalase to Excess Dietary Iron in Rats. Journal of Nutrition, 1981, 111, 2195-2202.	2.9	41
27	Protein metabolic roles in treatment of obesity. Current Opinion in Clinical Nutrition and Metabolic Care, 2010, 13, 403-407.	2.5	40
28	Egg Protein as a Source of Power, Strength, and Energy. Nutrition Today, 2009, 44, 43-48.	1.0	37
29	Optimizing Adult Protein Intake During Catabolic Health Conditions. Advances in Nutrition, 2020, 11, S1058-S1069.	6.4	36
30	A Reduced Carbohydrate, Increased Protein Diet Stabilizes Glycemic Control and Minimizes Adipose Tissue Glucose Disposal in Rats. Journal of Nutrition, 2006, 136, 1855-1861.	2.9	32
31	Effects of protein intake and gender on body composition changes: a randomized clinical weight loss trial. Nutrition and Metabolism, 2012, 9, 55.	3.0	32
32	Dairy bioactive proteins and peptides: a narrative review. Nutrition Reviews, 2021, 79, 36-47.	5.8	32
33	Changes in Aerobic and Anaerobic Metabolism in Rat Cardiac and Skeletal Muscles after Total or Partial Dietary Restrictions. Journal of Nutrition, 1981, 111, 994-1000.	2.9	23
34	Gut microbiota mediate the FGF21 adaptive stress response to chronic dietary protein-restriction in mice. Nature Communications, 2021, 12, 3838.	12.8	22
35	Response of Skeletal Muscle Protein Synthesis and Breakdown to Levels of Dietary Protein and Fat During Growth in Weanling Rats. Journal of Nutrition, 1982, 112, 255-262.	2.9	21
36	Cellular Development of Skeletal Muscle during Early Periods of Nutritional Restriction and Subsequent Rehabilitation. Pediatric Research, 1983, 17, 602-605.	2.3	21

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37	Meal Distribution of Dietary Protein and Leucine Influences Long-Term Muscle Mass and Body Composition in Adult Rats. Journal of Nutrition, 2017, 147, 195-201.	2.9	20
38	Post-Meal Responses of Elongation Factor 2 (eEF2) and Adenosine Monophosphate-Activated Protein Kinase (AMPK) to Leucine and Carbohydrate Supplements for Regulating Protein Synthesis Duration and Energy Homeostasis in Rat Skeletal Muscle. Nutrients, 2012, 4, 1723-1739.	4.1	18
39	Induction of autophagy through the activating transcription factor 4 (ATF4)-dependent amino acid response pathway in maternal skeletal muscle may function as the molecular memory in response to gestational protein restriction to alert offspring to maternal nutrition. British Journal of Nutrition, 2015, 114, 519-532.	2.3	17
40	Breast tumors induced by N-methyl-N-nitrosourea are damaging to bone strength, structure, and mineralization in the absence of metastasis in rats. Journal of Bone and Mineral Research, 2011, 26, 769-776.	2.8	16
41	Eating patterns, diet quality and energy balance. Physiology and Behavior, 2014, 134, 126-130.	2.1	16
42	Increased ratio of dietary carbohydrate to protein shifts the focus of metabolic signaling from skeletal muscle to adipose. Nutrition and Metabolism, 2011, 8, 13.	3.0	13
43	The effect of acute dietary restriction on muscle fibre number in weanling rats. British Journal of Nutrition, 1981, 45, 475-481.	2.3	12
44	Cellular Development of Skeletal Muscle of Rats during Recovery from Prolonged Undernutrition. Journal of Nutrition, 1987, 117, 1767-1774.	2.9	12
45	Iron Deficiency Impairs Protein Synthesis in Immune Tissues of Rat Pups. Journal of Nutrition, 1987, 117, 1475-1481.	2.9	11
46	Adaptations of adult lean and obese zucker rats during food restriction. Nutrition Research, 1988, 8, 1403-1412.	2.9	5
47	Meat intakeâ€™s influence on body fatness cannot be assessed without measurement of body fat. American Journal of Clinical Nutrition, 2010, 92, 1274-1275.	4.7	4
48	Lipoprotein lipase activities in exercise-trained rats isocalorically fed high or low fat diets. Nutrition Research, 1987, 7, 1187-1195.	2.9	3
49	Branched-chain ketoacid ingestion: an alternative to efficiently increase skeletal muscle protein synthesis. American Journal of Clinical Nutrition, 2019, 110, 799-800.	4.7	3
50	An in vivo examination of the effects of leucine on skeletal muscle protein synthesis in the fasting rat. Nutrition Research, 1991, 11, 1155-1166.	2.9	2
51	Protein and Amino Acid Metabolism During Exercise. ACS Symposium Series, 1986, , 45-58.	0.5	1
52	Muscle catabolism in lean and obese zucker rats fed a very low calorie diet. Nutrition Research, 1992, 12, 289-296.	2.9	1
53	Leucine dense whey proteins. Nutrafoods, 2011, 10, 11-16.	0.5	1
54	Diets with differing macronutrient profiles elicit differential changes in lipid ratios, specifically TC:HDLâ€C and TG:HDLâ€C. FASEB Journal, 2006, 20, A1026.	0.5	1

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55	Reconsidering protein, energy, and dietâ€induced thermogenesis. FASEB Journal, 2012, 26, 820.36.	0.5	1
56	Protein Nutrition, Meal Timing, and Muscle Health. , 2013, , 861-868.		1
57	Nutrition and Exercise: An Overview. ACS Symposium Series, 1986, , 1-7.	0.5	0
58	Aerobic Exercise and Body Composition. ACS Symposium Series, 1986, , 125-141.	0.5	0
59	Nitrogen metabolism at chronic low energy intakes. Nutrition Research, 1993, 13, 1053-1063.	2.9	0
60	Whey protein increases p70S6k signaling without Akt changes in a reduced carbohydrate diet. FASEB Journal, 2007, 21, .	0.5	0
61	Translational controls of muscle protein synthesis are delayed and prolonged associated with ingestion of a complete meal. FASEB Journal, 2007, 21, A714.	0.5	0
62	Male rats fed low or high carbohydrate diets for ten days did not differ in hepatic gene expression of enzymes associated with carbohydrate metabolism, but differed in peripheral insulin signaling. FASEB Journal, 2008, 22, 1089.6.	0.5	0
63	Dietary protein holds positive and negative effects on bone health in rats. FASEB Journal, 2009, 23, 220.5.	0.5	0
64	An elevated protein diet does not accelerate initiation and early progression of MNUâ€induced breast cancer tumors in rats. FASEB Journal, 2009, 23, 897.8.	0.5	0
65	Higher protein weight loss diet does not affect bone mineral density (BMD) in a doubleâ€blind RCT in postmenopausal women. FASEB Journal, 2010, 24, 946.6.	0.5	0
66	When a calorie isn't just a calorie: isocaloric, isonitrogenous diets containing different protein sources produce differential body composition outcomes in rats. FASEB Journal, 2010, 24, 220.6.	0.5	0
67	Protein supplementation during 6 mo weight loss enhances body composition changes in older women. FASEB Journal, 2010, 24, 93.7.	0.5	0
68	Protein Distribution Needs for Optimal Meal Response. FASEB Journal, 2011, 25, 983.7.	0.5	0
69	Protein Distribution Effect on Indices of Satiety. FASEB Journal, 2012, 26, 1013.5.	0.5	0
70	Muscle protein synthesis is suboptimal following a typical carbohydrateâ€rich breakfast. FASEB Journal, 2012, 26, 1013.7.	0.5	0