Dawn A Lowe

List of Publications by Year
in descending order

127 papers	6,177 citations	57758 44 h-index	79698 73 g-index
132 all docs	132 docs citations	132 times ranked	5588 citing authors

#	Article	IF	Citations
1	Measurement Tools Used in the Study of Eccentric Contraction???Induced Injury. Sports Medicine, 1999, 27, 43-59.	6.5	618
2	Mechanical factors in the initiation of eccentric contractionâ€induced injury in rat soleus muscle.. Journal of Physiology, 1993, 464, 457-475.	2.9	191
3	Excitation-Contraction Uncoupling: Major Role in Contraction-Induced Muscle Injury. Exercise and Sport Sciences Reviews, 2001, 29, 82-87.	3.0	190
4	Hormone Therapy and Skeletal Muscle Strength: A Meta-Analysis. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2009, 64A, 1071-1081.	3.6	173
5	Estradiol replacement reverses ovariectomy-induced muscle contractile and myosin dysfunction in mature female mice. Journal of Applied Physiology, 2007, 102, 1387-1393.	2.5	162
6	Excitation failure in eccentric contractionâ€induced injury of mouse soleus muscle.. Journal of Physiology, 1993, 468, 487-499.	2.9	149
7	Estrogen Regulates Estrogen Receptors and Antioxidant Gene Expression in Mouse Skeletal Muscle. PLoS ONE, 2010, 5, e10164.	2.5	145
8	Muscle function and protein metabolism after initiation of eccentric contraction-induced injury. Journal of Applied Physiology, 1995, 79, 1260-1270.	2.5	139
9	Microtubule binding distinguishes dystrophin from utrophin. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5723-5728.	7.1	132
10	Mechanisms Behind Estrogen's Beneficial Effect on Muscle Strength in Females. Exercise and Sport Sciences Reviews, 2010, 38, 61-67.	3.0	126
11	Electron paramagnetic resonance reveals age-related myosin structural changes in rat skeletal muscle fibers. American Journal of Physiology - Cell Physiology, 2001, 280, C540-C547.	4.6	123
12	Eccentric contraction-induced injury in normal and hindlimb-suspended mouse soleus and EDL muscles. Journal of Applied Physiology, 1994, 77, 1421-1430.	2.5	122
13	17Î²-Estradiol Directly Lowers Mitochondrial Membrane Microviscosity and Improves Bioenergetic Function in Skeletal Muscle. Cell Metabolism, 2018, 27, 167-179.e7.	16.2	122
14	What Mechanisms Contribute to the Strength Loss That Occurs During and in the Recovery from Skeletal Muscle Injury?. Journal of Orthopaedic and Sports Physical Therapy, 2002, 32, 58-64.	3.5	106
15	Hypertrophy-stimulated myogenic regulatory factor mRNA increases are attenuated in fast muscle of aged quails. American Journal of Physiology - Cell Physiology, 1998, 275, C155-C162.	4.6	101
16	Stretch-induced myogenin, MyoD, and MRF4 expression and acute hypertrophy in quail slow-tonic muscle are not dependent upon satellite cell proliferation. Cell and Tissue Research, 1999, 296, 531-539.	2.9	101
17	Aging of the musculoskeletal system: How the loss of estrogen impacts muscle strength. Bone, 2019, 123, 137-144.	2.9	98
18	Removal of ovarian hormones from mature mice detrimentally affects muscle contractile function and myosin structural distribution. Journal of Applied Physiology, 2006, 100, 548-559.	2.5	94

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19	Functional, structural, and chemical changes in myosin associated with hydrogen peroxide treatment of skeletal muscle fibers. American Journal of Physiology - Cell Physiology, 2008, 294, C613-C626.	4.6	92
20	A New Immuno-, Dystrophin-Deficient Model, the <i>NSG-mdx</i> <i>4Cv</i> Mouse, Provides Evidence for Functional Improvement Following Allogeneic Satellite Cell Transplantation. Stem Cells, 2013, 31, 1611-1620.	3.2	90
21	Estradiol and Tamoxifen Reverse Ovariectomy-Induced Physical Inactivity in Mice. Medicine and Science in Sports and Exercise, 2007, 39, 248-256.	0.4	88
22	Muscle pathology from stochastic low level DUX4 expression in an FSHD mouse model. Nature Communications, 2017, 8, 550.	12.8	84
23	Progressive resistance voluntary wheel running in the <i>mdx</i> mouse. Muscle and Nerve, 2010, 42, 871-880.	2.2	81
24	Estrogen Regulates the Satellite Cell Compartment in Females. Cell Reports, 2019, 28, 368-381.e6.	6.4	79
25	Adaptive and nonadaptive responses to voluntary wheel running by <i>mdx</i> mice. Muscle and Nerve, 2008, 38, 1290-1293.	2.2	78
26	Functional Substitution by TAT-Utrophin in Dystrophin-Deficient Mice. PLoS Medicine, 2009, 6, e1000083.	8.4	76
27	Force generation, but not myosin ATPase activity, declines with age in rat muscle fibers. American Journal of Physiology - Cell Physiology, 2002, 283, C187-C192.	4.6	75
28	Soleus and EDL muscle contractility across the lifespan of female C57BL/6 mice. Experimental Gerontology, 2005, 40, 966-975.	2.8	72
29	Estrogen replacement and skeletal muscle: mechanisms and population health. Journal of Applied Physiology, 2013, 115, 569-578.	2.5	68
30	Animal Models for Inducing Muscle Hypertrophy: Are They Relevant for Clinical Applications in Humans?. Journal of Orthopaedic and Sports Physical Therapy, 2002, 32, 36-43.	3.5	66
31	Increased myogenic repressor Id mRNA and protein levels in hindlimb muscles of aged rats. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2002, 282, R411-R422.	1.8	66
32	Dominant Lethal Pathologies in Male Mice Engineered to Contain an X-Linked DUX4 Transgene. Cell Reports, 2014, 8, 1484-1496.	6.4	65
33	Exercise Training Improves Plantar Flexor Muscle Function in mdx Mice. Medicine and Science in Sports and Exercise, 2012, 44, 1671-1679.	0.4	62
34	Effects of prednisolone on skeletal muscle contractility in <i>mdx</i> mice. Muscle and Nerve, 2009, 40, 443-454.	2.2	61
35	Glyceraldehyde-3-Phosphate Dehydrogenase Varies With Age in Glycolytic Muscles of Rats. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2000, 55, B160-B164.	3.6	55
36	Estradiol's beneficial effect on murine muscle function is independent of muscle activity. Journal of Applied Physiology, 2011, 110, 109-115.	2.5	55

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37	Materials fatigue initiates eccentric contractionâ€induced injury in rat soleus muscle.. Journal of Physiology, 1993, 464, 477-489.	2.9	52
38	The Effects of Age and Hindlimb Supension on the Levels of Expression of the Myogenic Regulatory Factors Myod and Myogenin in Rat Fast and Slow Skeletal Muscles. Experimental Physiology, 2001, 86, 509-517.	2.0	52
39	Estradiol modulates myosin regulatory light chain phosphorylation and contractility in skeletal muscle of female mice. American Journal of Physiology - Endocrinology and Metabolism, 2016, 310, E724-E733.	3.5	52
40	Comparing Individualized Rehabilitation to a Group Wellness Intervention for Persons with Multiple Sclerosis. American Journal of Health Promotion, 2009, 24, 23-26.	1.7	50
41	Flt-1 haploinsufficiency ameliorates muscular dystrophy phenotype by developmentally increased vasculature in mdx mice. Human Molecular Genetics, 2010, 19, 4145-4159.	2.9	49
42	Differential effects of anesthetics on in vivo skeletal muscle contractile function in the mouse. Journal of Applied Physiology, 1996, 80, 332-340.	2.5	48
43	Independent variability of microtubule perturbations associated with dystrophinopathy. Human Molecular Genetics, 2016, 25, ddw318.	2.9	48
44	Estradiol effect on anterior crural muscles-tibial bone relationship and susceptibility to injury. Journal of Applied Physiology, 1996, 80, 1660-1665.	2.5	46
45	Estradiol treatment, physical activity, and muscle function in ovarian-senescent mice. Experimental Gerontology, 2011, 46, 685-693.	2.8	44
46	Variable rescue of microtubule and physiological phenotypes in mdx muscle expressing different miniaturized dystrophins. Human Molecular Genetics, 2018, 27, 2090-2100.	2.9	44
47	Transcriptional and cytopathological hallmarks of FSHD in chronic DUX4-expressing mice. Journal of Clinical Investigation, 2020, 130, 2465-2477.	8.2	44
48	Bone is functionally impaired in dystrophic mice but less so than skeletal muscle. Neuromuscular Disorders, 2011, 21, 183-193.	0.6	43
49	Regulation of Physiological and Metabolic Function of Muscle by Female Sex Steroids. Medicine and Science in Sports and Exercise, 2012, 44, 1653-1662.	0.4	42
50	Deletion of estrogen receptor Î± in skeletal muscle results in impaired contractility in female mice. Journal of Applied Physiology, 2018, 124, 980-992.	2.5	42
51	Acute failure of action potential conduction in <i>mdx</i> muscle reveals new mechanism of contractionâ€induced force loss. Journal of Physiology, 2013, 591, 3765-3776.	2.9	41
52	Adaptive strength gains in dystrophic muscle exposed to repeated bouts of eccentric contraction. Journal of Applied Physiology, 2011, 111, 1768-1777.	2.5	40
53	Eccentric contraction-induced injury of mouse soleus muscle: effect of varying [Ca2+]o. Journal of Applied Physiology, 1994, 76, 1445-1453.	2.5	38
54	Membrane-stabilizing copolymers confer marked protection to dystrophic skeletal muscle in vivo. Molecular Therapy - Methods and Clinical Development, 2015, 2, 15042.	4.1	38

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55	Female reproductive factors are associated with objectively measured physical activity in middle-aged women. PLoS ONE, 2017, 12, e0172054.	2.5	38
56	Muscle activity and aging affect myosin structural distribution and force generation in rat fibers. Journal of Applied Physiology, 2004, 96, 498-506.	2.5	36
57	Effects of ovarian hormones and estrogen receptor Î± on physical activity and skeletal muscle fatigue in female mice. Experimental Gerontology, 2019, 115, 155-164.	2.8	35
58	Telomere shortening in diaphragm and tibialis anterior muscles of aged <i>mdx</i> mice. Muscle and Nerve, 2007, 36, 387-390.	2.2	33
59	Myofibrillar myosin ATPase activity in hindlimb muscles from young and aged rats. Mechanisms of Ageing and Development, 2004, 125, 619-627.	4.6	30
60	Effects of hindlimb unweighting and aging on rat semimembranosus muscle and myosin. Journal of Applied Physiology, 2006, 101, 873-880.	2.5	30
61	A moderate oestradiol level enhances neutrophil number and activity in muscle after traumatic injury but strength recovery is accelerated. Journal of Physiology, 2018, 596, 4665-4680.	2.9	29
62	Mechanical factors tune the sensitivity of mdx muscle to eccentric strength loss and its protection by antioxidant and calcium modulators. Skeletal Muscle, 2020, 10, 3.	4.2	29
63	Transgenic overexpression of Î³-cytoplasmic actin protects against eccentric contraction-induced force loss in mdx mice. Skeletal Muscle, 2011, 1, 32.	4.2	28
64	Skeletal muscle contractile function and neuromuscular performance in Zmpste24 âˆ’/âˆ’ mice, a murine model of human progeria. Age, 2012, 34, 805-819.	3.0	28
65	Chemical End Group Modified Diblock Copolymers Elucidate Anchor and Chain Mechanism of Membrane Stabilization. Molecular Pharmaceutics, 2017, 14, 2333-2339.	4.6	28
66	Redistribution of cell membrane probes following contraction-induced injury of mouse soleus muscle. Cell and Tissue Research, 1995, 282, 311-320.	2.9	27
67	Molecular and cellular contractile dysfunction of dystrophic muscle from young mice. Muscle and Nerve, 2006, 34, 92-100.	2.2	27
68	Quadriceps myopathy caused by skeletal muscle-specific ablation of Î²cyto-actin. Journal of Cell Science, 2011, 124, 951-957.	2.0	27
69	Adaptations of Mouse Skeletal Muscle to Low-Intensity Vibration Training. Medicine and Science in Sports and Exercise, 2013, 45, 1051-1059.	0.4	27
70	Loss of peroxiredoxin-2 exacerbates eccentric contraction-induced force loss in dystrophin-deficient muscle. Nature Communications, 2018, 9, 5104.	12.8	27
71	Voluntary run training but not estradiol deficiency alters the tibial bone-soleus muscle functional relationship in mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 293, R2015-R2026.	1.8	24
72	Exercise increases utrophin protein expression in the <i>mdx</i> mouse model of Duchenne muscular dystrophy. Muscle and Nerve, 2014, 49, 915-918.	2.2	24

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73	Skeletal Muscle-Specific Ablation of Î³cyto-Actin Does Not Exacerbate the mdx Phenotype. PLoS ONE, 2008, 3, e2419.	2.5	24
74	The myosin super-relaxed state is disrupted by estradiol deficiency. Biochemical and Biophysical Research Communications, 2015, 456, 151-155.	2.1	23
75	TAT-Î¼Utrophin mitigates the pathophysiology of dystrophin and utrophin double-knockout mice. Journal of Applied Physiology, 2011, 111, 200-205.	2.5	22
76	Xanthine oxidase is hyper-active in Duchenne muscular dystrophy. Free Radical Biology and Medicine, 2018, 129, 364-371.	2.9	22
77	Isometric resistance training increases strength and alters histopathology of dystrophin-deficient mouse skeletal muscle. Journal of Applied Physiology, 2019, 126, 363-375.	2.5	22
78	Dystrophinopathy-associated dysfunction of Krebs cycle metabolism. Human Molecular Genetics, 2019, 28, 942-951.	2.9	22
79	Effects of endurance exercise-training on single-fiber contractile properties of insulin-treated streptozotocin-induced diabetic rats. Journal of Applied Physiology, 2005, 99, 472-478.	2.5	21
80	Estrogen receptor-Î± in female skeletal muscle is not required for regulation of muscle insulin sensitivity and mitochondrial regulation. Molecular Metabolism, 2020, 34, 1-15.	6.5	21
81	Freeze Injury of the Tibialis Anterior Muscle. Methods in Molecular Biology, 2016, 1460, 33-41.	0.9	19
82	Age affects myosin relaxation states in skeletal muscle fibers of female but not male mice. PLoS ONE, 2018, 13, e0199062.	2.5	19
83	Prelamin A causes aberrant myonuclear arrangement and results in muscle fiber weakness. JCI Insight, 2018, 3, .	5.0	19
84	Plantarflexion Contracture in the mdx Mouse. American Journal of Physical Medicine and Rehabilitation, 2010, 89, 976-985.	1.4	18
85	Plasmalemma Function Is Rapidly Restored in Mdx Muscle after Eccentric Contractions. Medicine and Science in Sports and Exercise, 2020, 52, 354-361.	0.4	18
86	Electron Paramagnetic Resonance: A High-Resolution Tool for Muscle Physiology. Exercise and Sport Sciences Reviews, 2001, 29, 3-6.	3.0	17
87	Eccentric Contraction-Induced Muscle Injury: Reproducible, Quantitative, Physiological Models to Impair Skeletal Muscleâ€™s Capacity to Generate Force. Methods in Molecular Biology, 2016, 1460, 3-18.	0.9	17
88	The presence of the ovary prevents hepatic mitochondrial oxidative stress in young and aged female mice through glutathione peroxidase 1. Experimental Gerontology, 2016, 73, 14-22.	2.8	17
89	Neopterin/7,8â€dihydroneopterin is elevated in Duchenne muscular dystrophy patients and protects <i>mdx</i> skeletal muscle function. Experimental Physiology, 2018, 103, 995-1009.	2.0	17
90	Variable cytoplasmic actin expression impacts the sensitivity of different dystrophinâ€deficient mdx skeletal muscles to eccentric contraction. FEBS Journal, 2019, 286, 2562-2576.	4.7	17

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91	Feasibility and tolerability of wholeâ€body, lowâ€intensity vibration and its effects on muscle function and bone in patients with dystrophinopathies: a pilot study. Muscle and Nerve, 2017, 55, 875-883.	2.2	16
92	Oestradiol affects skeletal muscle mass, strength and satellite cells following repeated injuries. Experimental Physiology, 2020, 105, 1700-1707.	2.0	16
93	Super-relaxed state of myosin in human skeletal muscle is fiber-type dependent. American Journal of Physiology - Cell Physiology, 2020, 319, C1158-C1162.	4.6	16
94	Mouse models of two missense mutations in actin-binding domain 1 of dystrophin associated with Duchenne or Becker muscular dystrophy. Human Molecular Genetics, 2018, 27, 451-462.	2.9	14
95	Preservation of satellite cell number and regenerative potential with age reveals locomotory muscle bias. Skeletal Muscle, 2021, 11, 22.	4.2	14
96	Low Intensity, High Frequency Vibration Training to Improve Musculoskeletal Function in a Mouse Model of Duchenne Muscular Dystrophy. PLoS ONE, 2014, 9, e104339.	2.5	14
97	High Frequency Hearing Loss and Hyperactivity in DUX4 Transgenic Mice. PLoS ONE, 2016, 11, e0151467.	2.5	14
98	Skeletal muscle wasting: the estrogen side of sexual dimorphism. American Journal of Physiology - Cell Physiology, 2022, 322, C24-C37.	4.6	14
99	rAAV-related therapy fully rescues myonuclear and myofilament function in X-linked myotubular myopathy. Acta Neuropathologica Communications, 2020, 8, 167.	5.2	12
100	Estradiol deficiency and skeletal muscle apoptosis: Possible contribution of microRNAs. Experimental Gerontology, 2021, 147, 111267.	2.8	12
101	Comments on Point:Counterpoint: Estrogen and sex do/do not influence post-exercise indexes of muscle damage, inflammation, and repair. Journal of Applied Physiology, 2009, 106, 1016-1020.	2.5	11
102	CCR2 Elimination in Mice Results in Larger and Stronger Tibial Bones but Bone Loss is not Attenuated Following Ovariectomy or Muscle Denervation. Calcified Tissue International, 2014, 95, 457-466.	3.1	11
103	Influence of Ovarian Hormones on Strength Loss in Healthy and Dystrophic Female Mice. Medicine and Science in Sports and Exercise, 2015, 47, 1177-1187.	0.4	11
104	Activation of GPR30 improves exercise capacity and skeletal muscle strength in senescent female Fischer344ÂÃ—ÂBrown Norway rats. Biochemical and Biophysical Research Communications, 2016, 475, 81-86.	2.1	11
105	Rapid, redox-mediated mechanical susceptibility of the cortical microtubule lattice in skeletal muscle. Redox Biology, 2020, 37, 101730.	9.0	10
106	Editorial: New Insights into Estrogen/Estrogen Receptor Effects in the Cardiac and Skeletal Muscle. Frontiers in Endocrinology, 2020, 11, 141.	3.5	9
107	Impact of estrogen deficiency on diaphragm and leg muscle contractile function in female mdx mice. PLoS ONE, 2021, 16, e0249472.	2.5	9
108	Excitation-Contraction Uncoupling: Major Role in Contraction-Induced Muscle Injury. Exercise and Sport Sciences Reviews, 2001, 29, 82-87.	3.0	8

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109	Impaired muscle relaxation and mitochondrial fission associated with genetic ablation of cytoplasmic actin isoforms. FEBS Journal, 2018, 285, 481-500.	4.7	7
110	Membrane Proteins Increase with the Repeated Bout Effect. Medicine and Science in Sports and Exercise, 2021, Publish Ahead of Print, .	0.4	7
111	Distinct mechanical properties in homologous spectrin-like repeats of utrophin. Scientific Reports, 2019, 9, 5210.	3.3	6
112	Some dystrophy phenotypes of dystrophinâ€deficient mdx mice are exacerbated by mild, repetitive daily stress. FASEB Journal, 2021, 35, e21489.	0.5	5
113	Estradiol deficiency reduces the satellite cell pool by impairing cell cycle progression. American Journal of Physiology - Cell Physiology, 2022, 322, C1123-C1137.	4.6	5
114	Voluntary and magnetically evoked muscle contraction protocol in males with Duchenne muscular dystrophy: Safety, feasibility, reliability, and validity. Muscle and Nerve, 2021, 64, 190-198.	2.2	4
115	Tissue selective effects of bazedoxifene on the musculoskeletal system in female mice. Journal of Endocrinology, 2021, 248, 181-191.	2.6	3
116	Tetrahydrobiopterin synthesis and metabolism is impaired in dystrophinâ€deficient mdx mice and humans. Acta Physiologica, 2021, 231, e13627.	3.8	3
117	Contraction-Induced Loss of Plasmalemmal Electrophysiological Function Is Dependent on the Dystrophin Glycoprotein Complex. Frontiers in Physiology, 2021, 12, 757121.	2.8	3
118	Regulation of skeletal muscle strength by estradiol: neuronal nitric oxide synthase and myosin regulatory light chain. FASEB Journal, 2013, 27, 939.14.	0.5	3
119	Mechanisms of weakness in Mdx muscle following in vivo eccentric contractions. Journal of Muscle Research and Cell Motility, 2022, 43, 63-72.	2.0	2
120	Effects of Estrogen Replacement on Skeletal Muscle of Aged Mice that Experienced Natural Ovarian-Failure. Medicine and Science in Sports and Exercise, 2008, 40, S350.	0.4	1
121	In vivo potentiation of post-tetanic twitch across age and sex. Journal of General Physiology, 2022, 154, .	1.9	1
122	Progesterone and Estradiol Restore Wheel Running After Ovariectomy in Mice. Medicine and Science in Sports and Exercise, 2016, 48, 140.	0.4	0
123	Dystrophin is not required for skeletal muscle to adapt to repeated bouts of lengthening contractions. FASEB Journal, 2011, 25, 1105.13.	0.5	0
124	Ada ptations of mouse skeletal muscle to chronic lowâ€level, highâ€frequency vibration. FASEB Journal, 2011, 25, 1107.21.	0.5	0
125	Influence of Ovarian Hormones on Skeletal Muscle Contractility. , 2013, , 1-15.		0
126	Skeletal Muscle Specific Knock out of Estrogen Receptor Alpha Results in Low Strength. Medicine and Science in Sports and Exercise, 2016, 48, 15.	0.4	0

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127	Increased Fiber Excitability Does Not Contribute to Postâ€Tetanic Potentiation in Mice. FASEB Journal, 2019, 33, 701.14.	0.5	0