Leslie A Leinwand

List of Publications by Year
in descending order

140 papers	10,321 citations	31976 53 h-index	38395 95 g-index
157 all docs	157 docs citations	157 times ranked	12207 citing authors

#	Article	IF	Citations
1	A small-molecule inhibitor of sarcomere contractility suppresses hypertrophic cardiomyopathy in mice. Science, 2016, 351, 617-621.	12.6	494
2	Myosin Heavy Chain Isoform Expression in the Failing and Nonfailing Human Heart. Circulation Research, 2000, 86, 386-390.	4.5	480
3	Developmental myosins: expression patterns and functional significance. Skeletal Muscle, 2015, 5, 22.	4.2	352
4	Valvular Myofibroblast Activation by Transforming Growth Factor-Î². Circulation Research, 2004, 95, 253-260.	4.5	349
5	THE MAMMALIAN MYOSIN HEAVY CHAIN GENE FAMILY. Annual Review of Cell and Developmental Biology, 1996, 12, 417-439.	9.4	313
6	Cellular mechanisms of cardiomyopathy. Journal of Cell Biology, 2011, 194, 355-365.	5.2	308
7	Cardiac and skeletal muscle adaptations to voluntary wheel running in the mouse. Journal of Applied Physiology, 2001, 90, 1900-1908.	2.5	301
8	Genetic variability in forced and voluntary endurance exercise performance in seven inbred mouse strains. Journal of Applied Physiology, 2002, 92, 2245-2255.	2.5	238
9	Cardiac troponin T mutations result in allele-specific phenotypes in a mouse model for hypertrophic cardiomyopathy. Journal of Clinical Investigation, 1999, 104, 469-481.	8.2	213
10	Molecular Mechanisms Underlying Cardiac Adaptation to Exercise. Cell Metabolism, 2017, 25, 1012-1026.	16.2	201
11	Comparative sequence analysis of the complete human sarcomeric myosin heavy chain family: implications for functional diversity 1 1Edited by J. Karn. Journal of Molecular Biology, 1999, 290, 61-75.	4.2	200
12	Cancer Causes Cardiac Atrophy and Autophagy in a Sexually Dimorphic Manner. Cancer Research, 2011, 71, 1710-1720.	0.9	173
13	Alterations in cardiac adrenergic signaling and calcium cycling differentially affect the progression of cardiomyopathy. Journal of Clinical Investigation, 2001, 107, 967-974.	8.2	173
14	Exercise Can Prevent and Reverse the Severity of Hypertrophic Cardiomyopathy. Circulation Research, 2006, 98, 540-548.	4.5	168
15	Human cardiac myosin heavy chain genes and their linkage in the genome. Nucleic Acids Research, 1987, 15, 5443-5459.	14.5	164
16	Sex modifies exercise and cardiac adaptation in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H2768-H2776.	3.2	160
17	A 29 residue region of the sarcomeric myosin rod is necessary for filament formation 1 1Edited by J. Karn. Journal of Molecular Biology, 1997, 266, 317-330.	4.2	159
18	Sex is a potent modifier of the cardiovascular system. Journal of Clinical Investigation, 2003, 112, 302-307.	8.2	153

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19	Mice Expressing Mutant Myosin Heavy Chains Are a Model for Familial Hypertrophic Cardiomyopathy. Molecular Medicine, 1996, 2, 556-567.	4.4	150
20	Repeated intrathecal injections of plasmid DNA encoding interleukin-10 produce prolonged reversal of neuropathic pain. Pain, 2006, 126, 294-308.	4.2	150
21	Pregnancy as a cardiac stress model. Cardiovascular Research, 2014, 101, 561-570.	3.8	149
22	The Importance of Biological Sex and Estrogen in Rodent Models of Cardiovascular Health and Disease. Circulation Research, 2016, 118, 1294-1312.	4.5	145
23	Molecular consequences of the R453C hypertrophic cardiomyopathy mutation on human Î²-cardiac myosin motor function. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 12607-12612.	7.1	144
24	Hydrogels preserve native phenotypes of valvular fibroblasts through an elasticity-regulated PI3K/AKT pathway. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19336-19341.	7.1	140
25	Different Pathways Regulate Expression of the Skeletal Myosin Heavy Chain Genes. Journal of Biological Chemistry, 2001, 276, 43524-43533.	3.4	128
26	Expression of the Î² (slow)-isoform of MHC in the adult mouse heart causes dominant-negative functional effects. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H412-H419.	3.2	126
27	Uncoupling of Expression of an Intronic MicroRNA and Its Myosin Host Gene by Exon Skipping. Molecular and Cellular Biology, 2010, 30, 1937-1945.	2.3	126
28	Just 2% of SARS-CoV-2â^'positive individuals carry 90% of the virus circulating in communities. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	124
29	Sex-Based Cardiac Physiology. Annual Review of Physiology, 2009, 71, 1-18.	13.1	120
30	Fatty Acids Identified in the Burmese Python Promote Beneficial Cardiac Growth. Science, 2011, 334, 528-531.	12.6	120
31	Hypertrophy, Pathology, and Molecular Markers of Cardiac Pathogenesis. Circulation Research, 1998, 82, 773-778.	4.5	114
32	Contractility parameters of human Î²-cardiac myosin with the hypertrophic cardiomyopathy mutation R403Q show loss of motor function. Science Advances, 2015, 1, e1500511.	10.3	102
33	Functional diversity among a family of human skeletal muscle myosin motors. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 1053-1058.	7.1	100
34	Growth and Muscle Defects in Mice Lacking Adult Myosin Heavy Chain Genes. Journal of Cell Biology, 1997, 139, 1219-1229.	5.2	91
35	Prolonged Cre expression driven by the Î±-myosin heavy chain promoter can be cardiotoxic. Journal of Molecular and Cellular Cardiology, 2015, 86, 54-61.	1.9	90
36	miR-30 Family microRNAs Regulate Myogenic Differentiation and Provide Negative Feedback on the microRNA Pathway. PLoS ONE, 2015, 10, e0118229.	2.5	88

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37	Loaded wheel running and muscle adaptation in the mouse. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H455-H465.	3.2	83
38	Akt and MAPK signaling mediate pregnancy-induced cardiac adaptation. Journal of Applied Physiology, 2012, 112, 1564-1575.	2.5	80
39	Identification of functional differences between recombinant human Î± and Î² cardiac myosin motors. Cellular and Molecular Life Sciences, 2012, 69, 2261-2277.	5.4	80
40	Cardiac valve cells and their microenvironmentâ€"insights from in vitro studies. Nature Reviews Cardiology, 2014, 11, 715-727.	13.7	80
41	Gender and aging in a transgenic mouse model of hypertrophic cardiomyopathy. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H1136-H1144.	3.2	78
42	Biology of the cardiac myocyte in heart disease. Molecular Biology of the Cell, 2016, 27, 2149-2160.	2.1	78
43	A Î²1-adrenergic receptor CaM kinase II-dependent pathway mediates cardiac myocyte fetal gene induction. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1299-H1308.	3.2	77
44	PEGâ€"Anthracene Hydrogels as an Onâ€Demand Stiffening Matrix To Study Mechanobiology. Angewandte Chemie - International Edition, 2019, 58, 9912-9916.	13.8	77
45	Yin Yang 1 Is Increased in Human Heart Failure and Represses the Activity of the Human Î±-Myosin Heavy Chain Promoter. Journal of Biological Chemistry, 2003, 278, 31233-31239.	3.4	76
46	Soy diet worsens heart disease in mice. Journal of Clinical Investigation, 2005, 116, 209-216.	8.2	76
47	Sex is a potent modifier of the cardiovascular system. Journal of Clinical Investigation, 2003, 112, 302-307.	8.2	75
48	Mutation of the IIB myosin heavy chain gene results in muscle fiber loss and compensatory hypertrophy. American Journal of Physiology - Cell Physiology, 2001, 280, C637-C645.	4.6	73
49	Postnatal Myosin Heavy Chain Isoform Expression in Normal Mice and Mice Null for IIb or IId Myosin Heavy Chains. Developmental Biology, 2001, 229, 383-395.	2.0	72
50	Nuclear mechanosensing drives chromatin remodelling in persistently activated fibroblasts. Nature Biomedical Engineering, 2021, 5, 1485-1499.	22.5	71
51	The Effects of Biological Sex and Diet on the Development of Heart Failure. Circulation, 2007, 116, 2747-2759.	1.6	65
52	Hypertrophy, Fibrosis, and Sudden Cardiac Death in Response to Pathological Stimuli in Mice With Mutations in Cardiac Troponin T. Circulation, 2004, 110, 2102-2109.	1.6	64
53	Progression from hypertrophic to dilated cardiomyopathy in mice that express a mutant myosin transgene. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H151-H159.	3.2	57
54	Dilated cardiomyopathy myosin mutants have reduced force-generating capacity. Journal of Biological Chemistry, 2018, 293, 9017-9029.	3.4	57

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55	Estrogen receptor profiling and activity in cardiac myocytes. Molecular and Cellular Endocrinology, 2016, 431, 62-70.	3.2	55
56	Calcineurin activity is required for cardiac remodelling in pregnancy. Cardiovascular Research, 2013, 100, 402-410.	3.8	53
57	Animal models of hypertrophic cardiomyopathy. Current Opinion in Cardiology, 2000, 15, 189-196.	1.8	52
58	The Hypertrophic Cardiomyopathy Myosin Mutation R453C Alters ATP Binding and Hydrolysis of Human Cardiac Î²-Myosin. Journal of Biological Chemistry, 2014, 289, 5158-5167.	3.4	51
59	Spatial and Temporal Changes in Myosin Heavy Chain Gene Expression in Skeletal Muscle Development. Developmental Biology, 1999, 216, 312-326.	2.0	50
60	Skip residues modulate the structural properties of the myosin rod and guide thick filament assembly. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E3806-15.	7.1	50
61	IIb or not IIb? Regulation of myosin heavy chain gene expression in mice and men. Skeletal Muscle, 2011, 1, 5.	4.2	49
62	Loss of desmin leads to impaired voluntary wheel running and treadmill exercise performance. Journal of Applied Physiology, 2003, 95, 1617-1622.	2.5	46
63	Bioinformatics Assessment of Î²-Myosin Mutations Reveals Myosin's High Sensitivity to Mutations. Trends in Cardiovascular Medicine, 2008, 18, 141-149.	4.9	46
64	Mutations in the Î²-myosin rod cause myosin storage myopathy via multiple mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6291-6296.	7.1	46
65	Estrogens Mediate Cardiac Hypertrophy in a Stimulus-Dependent Manner. Endocrinology, 2012, 153, 4480-4490.	2.8	46
66	Shuttling of HDAC5 in H9C2 cells regulates YY1 function through CaMKIV/PKD and PP2A. American Journal of Physiology - Cell Physiology, 2006, 291, C1029-C1037.	4.6	44
67	The Ku Protein Complex Interacts with YY1, Is Up-Regulated in Human Heart Failure, and Represses Î± Myosin Heavy-Chain Gene Expression. Molecular and Cellular Biology, 2004, 24, 8705-8715.	2.3	43
68	MyoD, Myf5, and the calcineurin pathway activate the developmental myosin heavy chain genes. Developmental Biology, 2006, 294, 541-553.	2.0	43
69	Targeting the sarcomere in inherited cardiomyopathies. Nature Reviews Cardiology, 2022, 19, 353-363.	13.7	43
70	Morphological and Functional Alterations in Ventricular Myocytes From Male Transgenic Mice With Hypertrophic Cardiomyopathy. Circulation Research, 2004, 94, 201-207.	4.5	42
71	Transcatheter aortic valve replacements alter circulating serum factors to mediate myofibroblast deactivation. Science Translational Medicine, 2019, 11, .	12.4	41
72	Matters of the heart: Cellular sex differences. Journal of Molecular and Cellular Cardiology, 2021, 160, 42-55.	1.9	40

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73	Associations Between Female Sex, Sarcomere Variants, and Clinical Outcomes in Hypertrophic Cardiomyopathy. Circulation Genomic and Precision Medicine, 2021, 14, e003062.	3.6	38
74	High-resolution within-sewer SARS-CoV-2 surveillance facilitates informed intervention. Water Research, 2021, 204, 117613.	11.3	38
75	Saliva TwoStep for rapid detection of asymptomatic SARS-CoV-2 carriers. ELife, 2021, 10, .	6.0	37
76	The Superfast Human Extraocular Myosin Is Kinetically Distinct from the Fast Skeletal IIa, IIb, and IId Isoforms. Journal of Biological Chemistry, 2013, 288, 27469-27479.	3.4	36
77	Myosin heavy chain is not selectively decreased in murine cancer cachexia. International Journal of Cancer, 2012, 130, 2722-2727.	5.1	35
78	Diet and sex modify exercise and cardiac adaptation in the mouse. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H135-H145.	3.2	35
79	Metabolic crosstalk between the heart and liver impacts familial hypertrophic cardiomyopathy. EMBO Molecular Medicine, 2014, 6, 482-495.	6.9	34
80	The Most Prevalent Freeman-Sheldon Syndrome Mutations in the Embryonic Myosin Motor Share Functional Defects. Journal of Biological Chemistry, 2016, 291, 10318-10331.	3.4	34
81	Distinct Cardiac Transcriptional Profiles Defining Pregnancy and Exercise. PLoS ONE, 2012, 7, e42297.	2.5	33
82	Defining the Cardiac Fibroblast Secretome in a Fibrotic Microenvironment. Journal of the American Heart Association, 2020, 9, e017025.	3.7	33
83	Allele-specific differences in transcriptome, miRNome, and mitochondrial function in two hypertrophic cardiomyopathy mouse models. JCI Insight, 2018, 3, .	5.0	33
84	Myh7b/miR-499 gene expression is transcriptionally regulated by MRFs and Eos. Nucleic Acids Research, 2012, 40, 7303-7318.	14.5	32
85	Myoblast replication is reduced in the IUGR fetus despite maintained proliferative capacity in vitro. Journal of Endocrinology, 2017, 232, 475-491.	2.6	32
86	Estrogenic Compounds Are Not Always Cardioprotective and Can Be Lethal in Males with Genetic Heart Disease. Endocrinology, 2012, 153, 4470-4479.	2.8	31
87	Transcriptome and Functional Profile of Cardiac Myocytes Is Influenced by Biological Sex. Circulation: Cardiovascular Genetics, 2017, 10, .	5.1	31
88	Intrathecal Injection of Naked Plasmid DNA Provides Long-term Expression of Secreted Proteins. Molecular Therapy, 2009, 17, 88-94.	8.2	30
89	Higher Viral Load Drives Infrequent Severe Acute Respiratory Syndrome Coronavirus 2 Transmission Between Asymptomatic Residence Hall Roommates. Journal of Infectious Diseases, 2021, 224, 1316-1324.	4.0	29
90	Genes That Escape X Chromosome Inactivation Modulate Sex Differences in Valve Myofibroblasts. Circulation, 2022, 145, 513-530.	1.6	28

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91	The ancient sarcomeric myosins found in specialized muscles. Skeletal Muscle, 2019, 9, 7.	4.2	27
92	Inactivation of myosin heavy chain genes in the mouse: Diverse and unexpected phenotypes. Microscopy Research and Technique, 2000, 50, 492-499.	2.2	26
93	Myosin motor domains carrying mutations implicated in early or late onset hypertrophic cardiomyopathy have similar properties. Journal of Biological Chemistry, 2019, 294, 17451-17462.	3.4	26
94	Differences in microRNA-29 and Pro-fibrotic Gene Expression in Mouse and Human Hypertrophic Cardiomyopathy. Frontiers in Cardiovascular Medicine, 2019, 6, 170.	2.4	26
95	Three-dimensional encapsulation of adult mouse cardiomyocytes in hydrogels with tunable stiffness. Progress in Biophysics and Molecular Biology, 2020, 154, 71-79.	2.9	26
96	The role of Akt/GSK-3Î² signaling in familial hypertrophic cardiomyopathy. Journal of Molecular and Cellular Cardiology, 2009, 46, 739-747.	1.9	24
97	Whole transcriptome analysis of the fasting and fed Burmese python heart: insights into extreme physiological cardiac adaptation. Physiological Genomics, 2011, 43, 69-76.	2.3	24
98	The Vertebrate Myosin Heavy Chain: Genetics and Assembly Properties.. Cell Structure and Function, 1997, 22, 123-129.	1.1	24
99	Blocking cardiac growth in hypertrophic cardiomyopathy induces cardiac dysfunction and decreased survival only in males. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H838-H845.	3.2	23
100	Yin Yang 1 represses Î±-myosin heavy chain gene expression in pathologic cardiac hypertrophy. Biochemical and Biophysical Research Communications, 2004, 326, 79-86.	2.1	22
101	Interferon-Î³ Causes Cardiac Myocyte Atrophy via Selective Degradation of Myosin Heavy Chain in a Model of Chronic Myocarditis. American Journal of Pathology, 2012, 181, 2038-2046.	3.8	22
102	Suppression of eukaryotic translation termination by selected RNAs. Rna, 2000, 6, 1468-1479.	3.5	21
103	Effects of Pathogenic Proline Mutations on Myosin Assembly. Journal of Molecular Biology, 2012, 415, 807-818.	4.2	21
104	The Python Project: A Unique Model for Extending Research Opportunities to Undergraduate Students. CBE Life Sciences Education, 2014, 13, 698-710.	2.3	21
105	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
106	Cardiac Fibroblasts Mediate a Sexually Dimorphic Fibrotic Response to Î²â€Adrenergic Stimulation. Journal of the American Heart Association, 2021, 10, e018876.	3.7	20
107	Immunogenicity of intrathecal plasmid gene delivery: cytokine release and effects on transgene expression. Journal of Gene Medicine, 2009, 11, 782-790.	2.8	19
108	PEGâ€"Anthracene Hydrogels as an Onâ€Demand Stiffening Matrix To Study Mechanobiology. Angewandte Chemie, 2019, 131, 10017-10021.	2.0	19

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109	Enhanced detection of tRNA isoacceptors by combinatorial oligonucleotide hybridization. Rna, 2000, 6, 912-918.	3.5	17
110	The ATPase cycle of human muscle myosin II isoforms: Adaptation of a single mechanochemical cycle for different physiological roles. Journal of Biological Chemistry, 2019, 294, 14267-14278.	3.4	16
111	Expression of Normally Repressed Myosin Heavy Chain 7b in the Mammalian Heart Induces Dilated Cardiomyopathy. Journal of the American Heart Association, 2019, 8, e013318.	3.7	16
112	miR-206 Enforces a Slow Muscle Phenotype. Journal of Cell Science, 2020, 133, .	2.0	16
113	miR-1/206 downregulates splicing factor Srsf9 to promote C2C12 differentiation. Skeletal Muscle, 2019, 9, 31.	4.2	15
114	Spontaneous Aortic Regurgitation and Valvular Cardiomyopathy in Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, 1653-1662.	2.4	13
115	Hope for a Broken Heart?. Cell, 2003, 114, 658-659.	28.9	12
116	Molecular Events Underlying Pregnancy-Induced Cardiomyopathy. Cell, 2007, 128, 437-438.	28.9	12
117	Myosin filament assembly requires a cluster of four positive residues located in the rod domain. FEBS Letters, 2012, 586, 3008-3012.	2.8	12
118	Myosin 7b is a regulatory long noncoding RNA (lncMYH7b) in the human heart. Journal of Biological Chemistry, 2021, 296, 100694.	3.4	11
119	Diversity in transcriptional start site selection and alternative splicing affects the 5â€²-UTR of mouse striated muscle myosin transcripts. Journal of Muscle Research and Cell Motility, 2006, 27, 559-575.	2.0	9
120	Expanding our scientific horizons: utilization of unique model organisms in biological research. EMBO Journal, 2017, 36, 2311-2314.	7.8	9
121	Identification of sequence changes in myosin II that adjust muscle contraction velocity. PLoS Biology, 2021, 19, e3001248.	5.6	9
122	Interplay between Exonic Splicing Enhancers, mRNA Processing, and mRNA Surveillance in the Dystrophic Mdx Mouse. PLoS ONE, 2007, 2, e427.	2.5	8
123	Mechanisms of the Pathogenesis of Troponin T-Based Familial Hypertrophic Cardiomyopathy. Trends in Cardiovascular Medicine, 2003, 13, 232-237.	4.9	7
124	Chemically Tuned Myosin Motors. Science, 2011, 331, 1392-1393.	12.6	7
125	Measuring microRNA reporter activity in skeletal muscle using hydrodynamic limb vein injection of plasmid DNA combined with in vivo imaging. Skeletal Muscle, 2013, 3, 19.	4.2	7
126	Regression from pathological hypertrophy in mice is sexually dimorphic and stimulus specific. American Journal of Physiology - Heart and Circulatory Physiology, 2022, 322, H785-H797.	3.2	7

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127	Ablation of lysophosphatidic acid receptor 1 attenuates hypertrophic cardiomyopathy in a mouse model. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	7
128	Estimate of the abundance of cardiomyopathic mutations in the Î²-myosin gene. International Journal of Cardiology, 2010, 144, 124-126.	1.7	6
129	Mutations in the Sensitive Giant Titin Result in a Broken Heart. Circulation Research, 2012, 111, 158-161.	4.5	6
130	Pregnancy late in rodent life has detrimental effects on the heart. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H482-H491.	3.2	6
131	Young at Heart. Cell, 2013, 153, 743-745.	28.9	5
132	Nonproductive Splicing Prevents Expression of MYH7b Protein in the Mammalian Heart. Journal of the American Heart Association, 2021, 10, e020965.	3.7	5
133	Burmese pythons exhibit a transient adaptation to nutrient overload that prevents liver damage. Journal of General Physiology, 2022, 154, .	1.9	4
134	Letter to the editor: Comments on Stuart et al. (2016): â€œMyosin content of individual human muscle fibers isolated by laser capture microdissectionâ€• American Journal of Physiology - Cell Physiology, 2016, 311, C1048-C1049.	4.6	2
135	Myosin Myopathies. , 0, , 471-495.		0
136	Edmund H. Sonnenblick (1932â€“2007). Circulation Research, 2007, 101, 1222-1224.	4.5	0
137	Python model of physiological and pathological hypertrophy. FASEB Journal, 2009, 23, .	0.5	0
138	Quantitative responses of the mouse heart to pregnancy. FASEB Journal, 2009, 23, 969.7.	0.5	0
139	Morphological and molecular development in python model of pathological cardiac hypertrophy. FASEB Journal, 2010, 24, 1036.3.	0.5	0
140	Signaling pathways differ in pregnancy and exerciseâ€•induced cardiac hypertrophy. FASEB Journal, 2011, 25, 1059.11.	0.5	0