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List of Publications by Year
in descending order

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186 papers	16,240 citations	12330 69 h-index	17105 122 g-index
189 all docs	189 docs citations	189 times ranked	13036 citing authors

#	Article	IF	Citations
1	Folding-Unfolding Transitions in Single Titin Molecules Characterized with Laser Tweezers. Science, 1997, 276, 1112-1116.	12.6	1,147
2	The Complete Gene Sequence of Titin, Expression of an Unusual â‰ˆ700-kDa Titin Isoform, and Its Interaction With Obscurin Identify a Novel Z-Line to I-Band Linking System. Circulation Research, 2001, 89, 1065-1072.	4.5	593
3	Mutations of TTN, encoding the giant muscle filament titin, cause familial dilated cardiomyopathy. Nature Genetics, 2002, 30, 201-204.	21.4	526
4	The Giant Protein Titin. Circulation Research, 2004, 94, 284-295.	4.5	524
5	Myocardial Stiffness in Patients With Heart Failure and a Preserved Ejection Fraction. Circulation, 2015, 131, 1247-1259.	1.6	509
6	Altered Titin Expression, Myocardial Stiffness, and Left Ventricular Function in Patients With Dilated Cardiomyopathy. Circulation, 2004, 110, 155-162.	1.6	436
7	Calcium-dependent molecular spring elements in the giant protein titin. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13716-13721.	7.1	352
8	Identification of muscle specific ring finger proteins as potential regulators of the titin kinase domain. Journal of Molecular Biology, 2001, 306, 717-726.	4.2	350
9	Series of Exon-Skipping Events in the Elastic Spring Region of Titin as the Structural Basis for Myofibrillar Elastic Diversity. Circulation Research, 2000, 86, 1114-1121.	4.5	327
10	Developmental Control of Titin Isoform Expression and Passive Stiffness in Fetal and Neonatal Myocardium. Circulation Research, 2004, 94, 505-513.	4.5	299
11	The Muscle Ankyrin Repeat Proteins: CARP, ankrd2/Arpp and DARP as a Family of Titin Filament-based Stress Response Molecules. Journal of Molecular Biology, 2003, 333, 951-964.	4.2	296
12	The NH2 Terminus of Titin Spans the Z-Disc: Its Interaction with a Novel 19-kD Ligand (T-cap) Is Required for Sarcomeric Integrity. Journal of Cell Biology, 1998, 143, 1013-1027.	5.2	285
13	MURF-1 and MURF-2 Target a Specific Subset of Myofibrillar Proteins Redundantly: Towards Understanding MURF-dependent Muscle Ubiquitination. Journal of Molecular Biology, 2005, 350, 713-722.	4.2	270
14	Genetic Variation in Titin in Arrhythmogenic Right Ventricular Cardiomyopathyâ€“Overlap Syndromes. Circulation, 2011, 124, 876-885.	1.6	263
15	Myopalladin, a Novel 145-Kilodalton Sarcomeric Protein with Multiple Roles in Z-Disc and I-Band Protein Assemblies. Journal of Cell Biology, 2001, 153, 413-428.	5.2	250
16	Titin Extensibility In Situ: Entropic Elasticity of Permanently Folded and Permanently Unfolded Molecular Segments. Journal of Cell Biology, 1998, 140, 853-859.	5.2	238
17	PKC Phosphorylation of Titinâ€™s PEVK Element. Circulation Research, 2009, 105, 631-638.	4.5	238
18	Titin-Based Modulation of Calcium Sensitivity of Active Tension in Mouse Skinned Cardiac Myocytes. Circulation Research, 2001, 88, 1028-1035.	4.5	224

#	Article	IF	Citations
19	Cardiac Titin. Circulation, 2010, 121, 2137-2145.	1.6	214
20	Nebulin regulates thin filament length, contractility, and Z-disk structure in vivo. EMBO Journal, 2006, 25, 3843-3855.	7.8	208
21	Changes in Titin and Collagen Underlie Diastolic Stiffness Diversity of Cardiac Muscle. Journal of Molecular and Cellular Cardiology, 2000, 32, 2151-2161.	1.9	198
22	Titin Develops Restoring Force in Rat Cardiac Myocytes. Circulation Research, 1996, 79, 619-626.	4.5	195
23	Titin is a Target of Matrix Metalloproteinase-2. Circulation, 2010, 122, 2039-2047.	1.6	177
24	Recessive truncating titin gene, TTN , mutations presenting as centronuclear myopathy. Neurology, 2013, 81, 1205-1214.	1.1	177
25	Alterations in the Determinants of Diastolic Suction During Pacing Tachycardia. Circulation Research, 2000, 87, 235-240.	4.5	170
26	Phosphorylation of Titin Modulates Passive Stiffness of Cardiac Muscle in a Titin Isoform-dependent Manner. Journal of General Physiology, 2005, 125, 257-271.	1.9	170
27	Targeted deletion of titin N2B region leads to diastolic dysfunction and cardiac atrophy. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3444-3449.	7.1	155
28	Changes in Titin Isoform Expression in Pacing-Induced Cardiac Failure Give Rise to Increased Passive Muscle Stiffness. Circulation, 2002, 106, 1384-1389.	1.6	152
29	Experimentally Increasing Titin Compliance in a Novel Mouse Model Attenuates the Frank-Starling Mechanism But Has a Beneficial Effect on Diastole. Circulation, 2014, 129, 1924-1936.	1.6	143
30	Molecular Mechanics of Cardiac Titin's PEVK and N2B Spring Elements. Journal of Biological Chemistry, 2002, 277, 11549-11558.	3.4	141
31	Characterization of nebulette and nebulin and emerging concepts of their roles for vertebrate Z-discs. Journal of Molecular Biology, 1998, 282, 111-123.	4.2	139
32	Titin Isoform Variance and Length Dependence of Activation in Skinned Bovine Cardiac Muscle. Journal of Physiology, 2003, 553, 147-154.	2.9	127
33	Thin filament length dysregulation contributes to muscle weakness in nemaline myopathy patients with nebulin deficiency. Human Molecular Genetics, 2009, 18, 2359-2369.	2.9	124
34	Conditional Expression of Mutant M-line Titins Results in Cardiomyopathy with Altered Sarcomere Structure. Journal of Biological Chemistry, 2003, 278, 6059-6065.	3.4	118
35	Calcium-dependent inhibition of in vitro thin-filament motility by native titin. FEBS Letters, 1996, 380, 281-286.	2.8	117
36	The Mechanically Active Domain of Titin in Cardiac Muscle. Circulation Research, 1995, 77, 856-861.	4.5	116

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37	Structureâ€“function relations of the giant elastic protein titin in striated and smooth muscle cells. Muscle and Nerve, 2007, 36, 740-755.	2.2	115
38	Cardiac Titin and Heart Disease. Journal of Cardiovascular Pharmacology, 2014, 63, 207-212.	1.9	115
39	Histone deacetylase activity governs diastolic dysfunction through a nongenomic mechanism. Science Translational Medicine, 2018, 10, .	12.4	114
40	Truncation of Titinâ€™s Elastic PEVK Region Leads to Cardiomyopathy With Diastolic Dysfunction. Circulation Research, 2009, 105, 557-564.	4.5	105
41	Titin Is a Major Human Disease Gene. Circulation, 2013, 127, 938-944.	1.6	104
42	Tuning the molecular giant titin through phosphorylation: Role in health and disease. Trends in Cardiovascular Medicine, 2013, 23, 165-171.	4.9	99
43	Experimentally Increasing the Compliance of Titin Through RNA Binding Motif-20 (RBM20) Inhibition Improves Diastolic Function In a Mouse Model of Heart Failure With Preserved Ejection Fraction. Circulation, 2016, 134, 1085-1099.	1.6	98
44	Shortening of the Elastic Tandem Immunoglobulin Segment of Titin Leads to Diastolic Dysfunction. Circulation, 2013, 128, 19-28.	1.6	95
45	Congenital Titinopathy: Comprehensive characterization and pathogenic insights. Annals of Neurology, 2018, 83, 1105-1124.	5.3	93
46	Deleting titinâ€™s I-band/A-band junction reveals critical roles for titin in biomechanical sensing and cardiac function. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 14589-14594.	7.1	92
47	Structural and functional studies of titinâ€™s fn3 modules reveal conserved surface patterns and binding to myosin S1 - a possible role in the frank-starling mechanism of the heart. Journal of Molecular Biology, 2001, 313, 431-447.	4.2	91
48	Nebulin Alters Cross-bridge Cycling Kinetics and Increases Thin Filament Activation. Journal of Biological Chemistry, 2009, 284, 30889-30896.	3.4	90
49	Modulation of Muscle Atrophy, Fatigue and MLC Phosphorylation by MuRF1 as Indicated by Hindlimb Suspension Studies on MuRF1-KO Mice. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-9.	3.0	90
50	A Review of the Giant Protein Titin in Clinical Molecular Diagnostics of Cardiomyopathies. Frontiers in Cardiovascular Medicine, 2016, 3, 21.	2.4	90
51	A Novel Mechanism Involving Four-and-a-half LIM Domain Protein-1 and Extracellular Signal-regulated Kinase-2 Regulates Titin Phosphorylation and Mechanics. Journal of Biological Chemistry, 2012, 287, 29273-29284.	3.4	89
52	Novel role of calpain-3 in the triad-associated protein complex regulating calcium release in skeletal muscle. Human Molecular Genetics, 2008, 17, 3271-3280.	2.9	87
53	Stress-induced dilated cardiomyopathy in a knock-in mouse model mimicking human titin-based disease. Journal of Molecular and Cellular Cardiology, 2009, 47, 352-358.	1.9	87
54	Altered myofilament function depresses force generation in patients with nebulin-based nemaline myopathy (NEM2). Journal of Structural Biology, 2010, 170, 334-343.	2.8	87

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55	Thick-Filament Strain and Interfilament Spacing in Passive Muscle: Effect of Titin-Based Passive Tension. Biophysical Journal, 2011, 100, 1499-1508.	0.5	87
56	Titin-based tension in the cardiac sarcomere: Molecular origin and physiological adaptations. Progress in Biophysics and Molecular Biology, 2012, 110, 204-217.	2.9	87
57	Dynamic distribution of muscle-specific calpain in mice has a key role in physical-stress adaptation and is impaired in muscular dystrophy. Journal of Clinical Investigation, 2010, 120, 2672-2683.	8.2	85
58	Extensibility of Isoforms of Cardiac Titin: Variation in Contour Length of Molecular Subsegments Provides a Basis for Cellular Passive Stiffness Diversity. Biophysical Journal, 2000, 79, 3226-3234.	0.5	84
59	Different Molecular Mechanics Displayed by Titin's Constitutively and Differentially Expressed Tandem Ig Segments. Journal of Structural Biology, 2002, 137, 248-258.	2.8	83
60	Induction and Myofibrillar Targeting of CARP, and Suppression of the Nkx2.5 Pathway in the MDM Mouse with Impaired Titin-based Signaling. Journal of Molecular Biology, 2004, 336, 145-154.	4.2	83
61	Expression of Distinct Classes of Titin Isoforms in Striated and Smooth Muscles by Alternative Splicing, and Their Conserved Interaction with Filamins. Journal of Molecular Biology, 2006, 362, 664-681.	4.2	80
62	The giant protein titin regulates the length of the striated muscle thick filament. Nature Communications, 2017, 8, 1041.	12.8	79
63	Acidic and basic troponin T isoforms in mature fast-twitch skeletal muscle and effect on contractility. American Journal of Physiology - Cell Physiology, 1999, 276, C1162-C1170.	4.6	77
64	Titin and Its associated proteins: the third myofilament system of the sarcomere. Advances in Protein Chemistry, 2005, 71, 89-119.	4.4	77
65	MuRF1 is a muscle fiber-type II associated factor and together with MuRF2 regulates type-II fiber trophicity and maintenance. Journal of Structural Biology, 2010, 170, 344-353.	2.8	75
66	Titin and Diaphragm Dysfunction in Chronic Obstructive Pulmonary Disease. American Journal of Respiratory and Critical Care Medicine, 2006, 173, 527-534.	5.6	74
67	Downsizing the molecular spring of the giant protein titin reveals that skeletal muscle titin determines passive stiffness and drives longitudinal hypertrophy. ELife, 2018, 7, .	6.0	74
68	Mouse intact cardiac myocyte mechanics: cross-bridge and titin-based stress in unactivated cells. Journal of General Physiology, 2011, 137, 81-91.	1.9	73
69	Nebulin, a major player in muscle health and disease. FASEB Journal, 2011, 25, 822-829.	0.5	73
70	Titin-based modulation of active tension and interfilament lattice spacing in skinned rat cardiac muscle. Pflugers Archiv European Journal of Physiology, 2005, 449, 449-457.	2.8	71
71	Titin: Physiological Function and Role in Cardiomyopathy and Failure. Heart Failure Reviews, 2005, 10, 211-223.	3.9	70
72	Knockout of Lmod2 results in shorter thin filaments followed by dilated cardiomyopathy and juvenile lethality. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13573-13578.	7.1	70

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73	Late-life restoration of mitochondrial function reverses cardiac dysfunction in old mice. ELife, 2020, 9, .	6.0	68
74	Titin/connectin-based modulation of the Frank-Starling mechanism of the heart. Journal of Muscle Research and Cell Motility, 2006, 26, 319-323.	2.0	66
75	The multifunctional Ca2+/calmodulin-dependent protein kinase II delta (CaMKIIÎ´) phosphorylates cardiac titin's spring elements. Journal of Molecular and Cellular Cardiology, 2013, 54, 90-97.	1.9	66
76	Contribution of titin and extracellular matrix to passive pressure and measurement of sarcomere length in the mouse left ventricle. Journal of Molecular and Cellular Cardiology, 2011, 50, 731-739.	1.9	65
77	Protein Changes Contributing to Right Ventricular Cardiomyocyte Diastolic Dysfunction in Pulmonary Arterial Hypertension. Journal of the American Heart Association, 2014, 3, e000716.	3.7	65
78	Role of Titin Missense Variants in Dilated Cardiomyopathy. Journal of the American Heart Association, 2015, 4, .	3.7	64
79	The Giant Muscle Protein Titin is an Adjustable Molecular Spring. Exercise and Sport Sciences Reviews, 2006, 34, 50-53.	3.0	63
80	Positive End-Expiratory Pressure Ventilation Induces Longitudinal Atrophy in Diaphragm Fibers. American Journal of Respiratory and Critical Care Medicine, 2018, 198, 472-485.	5.6	63
81	Hypothyroidism leads to increased collagen-based stiffness and re-expression of large cardiac titin isoforms with high compliance. Journal of Molecular and Cellular Cardiology, 2007, 42, 186-195.	1.9	62
82	MMP inhibitors attenuate doxorubicin cardiotoxicity by preventing intracellular and extracellular matrix remodelling. Cardiovascular Research, 2021, 117, 188-200.	3.8	61
83	Hyperphosphorylation of Mouse Cardiac Titin Contributes to Transverse Aortic Constriction-Induced Diastolic Dysfunction. Circulation Research, 2011, 109, 858-866.	4.5	59
84	Tuning Passive Mechanics through Differential Splicing of Titin during Skeletal Muscle Development. Biophysical Journal, 2009, 97, 2277-2286.	0.5	58
85	Titinâ€based mechanosensing modulates muscle hypertrophy. Journal of Cachexia, Sarcopenia and Muscle, 2018, 9, 947-961.	7.3	58
86	Cardiac Hypertrophy and Reduced Contractility in Hearts Deficient in the Titin Kinase Region. Circulation, 2007, 115, 743-751.	1.6	57
87	Reduced myofibrillar connectivity and increased Z-disk width in nebulin-deficient skeletal muscle. Journal of Cell Science, 2010, 123, 384-391.	2.0	55
88	Deleting exon 55 from the nebulin gene induces severe muscle weakness in a mouse model for nemaline myopathy. Brain, 2013, 136, 1718-1731.	7.6	55
89	Sarcoplasmic reticulum calcium uptake and speed of relaxation are depressed in nebulinâ€free skeletal muscle. FASEB Journal, 2008, 22, 2912-2919.	0.5	54
90	Mutationâ€specific effects on thin filament length in thin filament myopathy. Annals of Neurology, 2016, 79, 959-969.	5.3	54

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91	Nebulin deficiency in adult muscle causes sarcomere defects and muscle-type-dependent changes in trophicity: novel insights in nemaline myopathy. Human Molecular Genetics, 2015, 24, 5219-5233.	2.9	53
92	Novel mutations in NEB cause abnormal nebulin expression and markedly impaired muscle force generation in severe nemaline myopathy. Skeletal Muscle, 2011, 1, 23.	4.2	51
93	Single Molecule Force Spectroscopy of the Cardiac Titin N2B Element. Journal of Biological Chemistry, 2009, 284, 13914-13923.	3.4	50
94	Dimerization of the cardiac ankyrin protein CARP: Implications for MARP titin-based signaling. Journal of Muscle Research and Cell Motility, 2006, 26, 401-408.	2.0	49
95	Tissue Triage and Freezing for Models of Skeletal Muscle Disease. Journal of Visualized Experiments, 2014, , .	0.3	48
96	Reducing RBM20 activity improves diastolic dysfunction and cardiac atrophy. Journal of Molecular Medicine, 2016, 94, 1349-1358.	3.9	48
97	Thick-Filament Extensibility in Intact SkeletalÂMuscle. Biophysical Journal, 2018, 115, 1580-1588.	0.5	48
98	A missense variant in the titin gene in Doberman pinscher dogs with familial dilated cardiomyopathy and sudden cardiac death. Human Genetics, 2019, 138, 515-524.	3.8	47
99	Titin isoform-dependent effect of calcium on passive myocardial tension. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H2528-H2534.	3.2	46
100	Differential splicing of the large sarcomeric protein nebulin during skeletal muscle development. Journal of Structural Biology, 2010, 170, 325-333.	2.8	46
101	Calcium sensitivity and the Frankâ€“Starling mechanism of the heart are increased in titin N2B region-deficient mice. Journal of Molecular and Cellular Cardiology, 2010, 49, 449-458.	1.9	46
102	Troponin activator augments muscle force in nemaline myopathy patients with nebulin mutations. Journal of Medical Genetics, 2013, 50, 383-392.	3.2	46
103	Deleting Full Length Titin Versus the Titin M-Band Region Leads to Differential Mechanosignaling and Cardiac Phenotypes. Circulation, 2019, 139, 1813-1827.	1.6	45
104	Titin mutations and muscle disease. Pflugers Archiv European Journal of Physiology, 2019, 471, 673-682.	2.8	42
105	Increased myocardial stiffness due to cardiac titin isoform switching in a mouse model of volume overload limits eccentric remodeling. Journal of Molecular and Cellular Cardiology, 2015, 79, 104-114.	1.9	41
106	Osteopontin Promotes Left Ventricular Diastolic Dysfunction Through a Mitochondrial Pathway. Journal of the American College of Cardiology, 2019, 73, 2705-2718.	2.8	41
107	Role of the Giant Elastic Protein Titin in the Frank-Starling Mechanism of the Heart. Current Vascular Pharmacology, 2004, 2, 135-139.	1.7	41
108	Functional genomics of chicken, mouse, and human titin supports splice diversity as an important mechanism for regulating biomechanics of striated muscle. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2007, 293, R557-R567.	1.8	39

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109	Nebulin stiffens the thin filament and augments cross-bridge interaction in skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10369-10374.	7.1	39
110	Fine mapping titin's C-zone: Matching cardiac myosin-binding protein C stripes with titin's super-repeats. Journal of Molecular and Cellular Cardiology, 2019, 133, 47-56.	1.9	39
111	Single Molecule Force Spectroscopy on Titin Implicates Immunoglobulin Domain Stability as a Cardiac Disease Mechanism*. Journal of Biological Chemistry, 2013, 288, 5303-5315.	3.4	38
112	Effect of exercise training on post-translational and post-transcriptional regulation of titin stiffness in striated muscle of wild type and IG KO mice. Archives of Biochemistry and Biophysics, 2014, 552-553, 100-107.	3.0	38
113	Sarcomeric dysfunction contributes to muscle weakness in facioscapulohumeral muscular dystrophy. Neurology, 2013, 80, 733-737.	1.1	36
114	Diaphragm contractile weakness due to reduced mechanical loading: role of titin. American Journal of Physiology - Cell Physiology, 2019, 317, C167-C176.	4.6	35
115	Metformin improves diastolic function in an HFpEF-like mouse model by increasing titin compliance. Journal of General Physiology, 2019, 151, 42-52.	1.9	34
116	Titin-based stiffening of muscle fibers in Ehlers-Danlos Syndrome. Journal of Applied Physiology, 2012, 112, 1157-1165.	2.5	33
117	Thin filament length in the cardiac sarcomere varies with sarcomere length but is independent of titin and nebulin. Journal of Molecular and Cellular Cardiology, 2016, 97, 286-294.	1.9	32
118	Nebulin and titin modulate cross-bridge cycling and length-dependent calcium sensitivity. Journal of General Physiology, 2019, 151, 680-704.	1.9	32
119	Alternative Splicing of Titin Restores Diastolic Function in an HFpEF-Like Genetic Murine Model () Tj ETQq1 1 0.784314 rgBT /Overlock	4.5	31
120	Role of Titin in Skeletal Muscle Function and Disease. Advances in Experimental Medicine and Biology, 2010, 682, 105-122.	1.6	31
121	Altered Contractility of Skeletal Muscle in Mice Deficient in Titinâ€™s M-Band Region. Journal of Molecular Biology, 2009, 393, 10-26.	4.2	30
122	The Sarcomeric Protein Nebulin: Another Multifunctional Giant in Charge of Muscle Strength Optimization. Frontiers in Physiology, 2012, 3, 37.	2.8	30
123	Phosphorylating Titinâ€™s Cardiac N2B Element by ERK2 or CaMKIIÎ´ Lowers the Single Molecule and Cardiac Muscle Force. Biophysical Journal, 2015, 109, 2592-2601.	0.5	30
124	Titin as a modular spring: emerging mechanisms for elasticity control by titin in cardiac physiology and pathophysiology. Journal of Muscle Research and Cell Motility, 2002, 23, 457-470.	2.0	25
125	Fast Skeletal Muscle Troponin Activation Increases Force of Mouse Fast Skeletal Muscle and Ameliorates Weakness Due to Nebulin-Deficiency. PLoS ONE, 2013, 8, e55861.	2.5	25
126	Impairments in contractility and cytoskeletal organisation cause nuclear defects in nemaline myopathy. Acta Neuropathologica, 2019, 138, 477-495.	7.7	25

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127	KBTBD13 is an actin-binding protein that modulates muscle kinetics. Journal of Clinical Investigation, 2020, 130, 754-767.	8.2	25
128	Mechanics on Myocardium Deficient in the N2B Region of Titin: The Cardiac-Unique Spring Element Improves Efficiency of the Cardiac Cycle. Biophysical Journal, 2011, 101, 1385-1392.	0.5	24
129	Renin overexpression leads to increased titin-based stiffness contributing to diastolic dysfunction in hypertensive mRen2 rats. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1671-H1682.	3.2	24
130	Sarcomere lengthâ€“dependent effects on Ca2+-troponin regulation in myocardium expressing compliant titin. Journal of General Physiology, 2019, 151, 30-41.	1.9	24
131	Titin: An endosarcomeric protein that modulates myocardial stiffness in DCM. Journal of Cardiac Failure, 2002, 8, S276-S286.	1.7	23
132	Phosphodiesterase 9a Inhibition in Mouse Models of Diastolic Dysfunction. Circulation: Heart Failure, 2020, 13, e006609.	3.9	23
133	New Insights into the Structural Roles of Nebulin in Skeletal Muscle. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-6.	3.0	22
134	Nebulin and Lmod2 are critical for specifying thin-filament length in skeletal muscle. Science Advances, 2020, 6, .	10.3	22
135	Lifting the Nebula: Novel Insights into Skeletal Muscle Contractility. Physiology, 2010, 25, 304-310.	3.1	21
136	Effect of levosimendan on the contractility of muscle fibers from nemaline myopathy patients with mutations in the nebulin gene. Skeletal Muscle, 2015, 5, 12.	4.2	21
137	Calcium sensitivity and myofilament lattice structure in titin N2B KO mice. Archives of Biochemistry and Biophysics, 2013, 535, 76-83.	3.0	19
138	Deletion of the titin N2B region accelerates myofibrillar force development but does not alter relaxation kinetics. Journal of Cell Science, 2014, 127, 3666-74.	2.0	19
139	Effect of exercise on passive myocardial stiffness in mice with diastolic dysfunction. Journal of Molecular and Cellular Cardiology, 2017, 108, 24-33.	1.9	19
140	Nebulin increases thin filament stiffness and force per cross-bridge in slow-twitch soleus muscle fibers. Journal of General Physiology, 2018, 150, 1510-1522.	1.9	18
141	Exploration of pathomechanisms triggered by a single-nucleotide polymorphism in titin's I-band: the cardiomyopathy-linked mutation T2580I. Open Biology, 2016, 6, 160114.	3.6	17
142	Reduced passive force in skeletal muscles lacking protein arginylation. American Journal of Physiology - Cell Physiology, 2016, 310, C127-C135.	4.6	17
143	Muscle ankyrin repeat protein 1 (MARP1) locks titin to the sarcomeric thin filament and is a passive force regulator. Journal of General Physiology, 2021, 153, .	1.9	17
144	Muscular changes in animal models of heart failure with preserved ejection fraction: what comes closest to the patient?. ESC Heart Failure, 2021, 8, 139-150.	3.1	17

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145	Novex-3, the tiny titin of muscle. Biophysical Reviews, 2017, 9, 201-206.	3.2	16
146	Single-Molecule Force Spectroscopy on the N2A Element of Titin: Effects of Phosphorylation and CARP. Frontiers in Physiology, 2020, 11, 173.	2.8	16
147	Deleting nebulin's C-terminus reveals its importance to sarcomeric structure and function and is sufficient to invoke nemaline myopathy. Human Molecular Genetics, 2019, 28, 1709-1725.	2.9	15
148	Increased Titin Compliance Reduced Length-Dependent Contraction and Slowed Cross-Bridge Kinetics in Skinned Myocardial Strips from Rbm20Î”RRM Mice. Frontiers in Physiology, 2016, 7, 322.	2.8	14
149	Exome sequencing reveals a nebulin nonsense mutation in a dog model of nemaline myopathy. Mammalian Genome, 2016, 27, 495-502.	2.2	14
150	RBM20S639G mutation is a high genetic risk factor for premature death through RNA-protein condensates. Journal of Molecular and Cellular Cardiology, 2022, 165, 115-129.	1.9	14
151	HDAC6 modulates myofibril stiffness and diastolic function of the heart. Journal of Clinical Investigation, 2022, 132, .	8.2	12
152	Muscle weakness in respiratory and peripheral skeletal muscles in a mouse model for nebulin-based nemaline myopathy. Neuromuscular Disorders, 2017, 27, 83-89.	0.6	11
153	Myostatin Inhibition Using ActRIIB-mFc Does Not Produce Weight Gain or Strength in the Nebulin Conditional KO Mouse. Journal of Neuropathology and Experimental Neurology, 2019, 78, 130-139.	1.7	11
154	Triggering typical nemaline myopathy with compound heterozygous nebulin mutations reveals myofilament structural changes as pathomechanism. Nature Communications, 2020, 11, 2699.	12.8	11
155	Pathogenic variants in TNNC2 cause congenital myopathy due to an impaired force response to calcium. Journal of Clinical Investigation, 2021, 131, .	8.2	11
156	RBM20 phosphorylation and its role in nucleocytoplasmic transport and cardiac pathogenesis. FASEB Journal, 2022, 36, e22302.	0.5	10
157	Myosin light chain phosphorylation to the rescue. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 9148-9149.	7.1	9
158	Omecamtiv mecarbil lowers the contractile deficit in a mouse model of nebulin-based nemaline myopathy. PLoS ONE, 2019, 14, e0224467.	2.5	9
159	Deleting Titinâ€™s C-Terminal PEVK Exons Increases Passive Stiffness, Alters Splicing, and Induces Cross-Sectional and Longitudinal Hypertrophy in Skeletal Muscle. Frontiers in Physiology, 2020, 11, 494.	2.8	8
160	A new congenital multicore titinopathy associated with fast myosin heavy chain deficiency. Annals of Clinical and Translational Neurology, 2020, 7, 846-854.	3.7	8
161	Sex dimorphisms of crossbridge cycling kinetics in transgenic hypertrophic cardiomyopathy mice. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H125-H136.	3.2	7
162	Expressing a Z-disk nebulin fragment in nebulin-deficient mouse muscle: effects on muscle structure and function. Skeletal Muscle, 2020, 10, 2.	4.2	7

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163	The number of Z-repeats and super-repeats in nebulin greatly varies across vertebrates and scales with animal size. Journal of General Physiology, 2021, 153, .	1.9	7
164	In vivo characterization of skeletal muscle function in nebulinâ€deficient mice. Muscle and Nerve, 2020, 61, 416-424.	2.2	6
165	Functional Characterization of the Intact Diaphragm in a Nebulin-Based Nemaline Myopathy (NM) Model-Effects of the Fast Skeletal Muscle Troponin Activator tirasemtiv. International Journal of Molecular Sciences, 2019, 20, 5008.	4.1	4
166	Failure to identify modifiers of NEBULIN related nemaline myopathy in two pre-clinical models of the disease. Biology Open, 2019, 8, .	1.2	4
167	Editorial: Recent Advances on Myocardium Physiology. Frontiers in Physiology, 2021, 12, 697852.	2.8	4
168	Softening the Stressed Giant Titin in Diabetes Mellitus. Circulation Research, 2018, 123, 315-317.	4.5	3
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180	Response by Methawasin and Granzier to Letter Regarding Article, â€œExperimentally Increasing the Compliance of Titin Through RNA Binding Motif-20 (RBM20) Inhibition Improves Diastolic Function in a Mouse Model of Heart Failure With Preserved Ejection Fractionâ€. Circulation, 2017, 135, e681-e682.	1.6	0

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