Dilson E Rassier

List of Publications by Year in Descending Order

82 papers	1,693 citations	25 h-index	36 g-index
87 ext. papers	2,005 ext. citations	4.7 avg, IF	5.13 L-index

#	Paper	IF	Citations
82	Millisecond Conformational Dynamics of Skeletal Myosin II Power Stroke Studied by High-Speed Atomic Force Microscopy. *ACS Nano*, **2021**, 15, 2229-2239	16.7	2
81	Twenty-one days of low-intensity eccentric training improve morphological characteristics and function of soleus muscles of mdx mice. *Scientific Reports*, **2021**, 11, 3579	4.9	1
80	KBTBD13 is an actin-binding protein that modulates muscle kinetics. *Journal of Clinical Investigation* , **2020**, 130, 754-767	15.9	15
79	Extraction of Thick Filaments in Individual Sarcomeres Affects Force Production by Single Myofibrils. *Biophysical Journal*, **2020**, 118, 1921-1929	2.9	4
78	Sarcomere Length Nonuniformity and Force Regulation in Myofibrils and Sarcomeres. *Biophysical Journal*, **2020**, 119, 2372-2377	2.9	8
77	Sarcomere length non-uniformities dictate force production along the descending limb of the force-length relation. *Proceedings of the Royal Society B: Biological Sciences*, **2020**, 287, 20202133	4.4	3
76	Force enhancement after stretch of isolated myofibrils is increased by sarcomere length non-uniformities. *Scientific Reports*, **2020**, 10, 21590	4.9	1
75	The load dependence and the force-velocity relation in intact myosin filaments from skeletal and smooth muscles. *American Journal of Physiology - Cell Physiology*, **2020**, 318, C103-C110	5.4	5
74	Force generated by myosin cross-bridges is reduced in myofibrils exposed to ROS/RNS. *American Journal of Physiology - Cell Physiology*, **2019**, 317, C1304-C1312	5.4	5
73	Skeletal MyBP-C isoforms tune the molecular contractility of divergent skeletal muscle systems. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 21882-21892	11.5	15
72	Nonlinear Actomyosin Elasticity in Muscle?. *Biophysical Journal*, **2019**, 116, 330-346	2.9	5
71	Mechanical ventilation causes diaphragm dysfunction in newborn lambs. *Critical Care*, **2019**, 23, 123	10.8	6
70	The effects of fatigue and oxidation on contractile function of intact muscle fibers and myofibrils isolated from the mouse diaphragm. *Scientific Reports*, **2019**, 9, 4422	4.9	3
69	Protein arginylation of cytoskeletal proteins in the muscle: modifications modifying function. *American Journal of Physiology - Cell Physiology*, **2019**, 316, C668-C677	5.4	5
68	Oxidative hotspots on actin promote skeletal muscle weakness in rheumatoid arthritis. *JCI Insight*, **2019**, 5,	9.9	10
67	High-speed AFM reveals subsecond dynamics of cardiac thin filaments upon Ca activation and heavy meromyosin binding. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 16384-16393	11.5	13
66	Cleavage of loops 1 and 2 in skeletal muscle heavy meromyosin (HMM) leads to a decreased function. *Archives of Biochemistry and Biophysics*, **2019**, 661, 168-177	4.1	3

65	Dysfunctional sarcomere contractility contributes to muscle weakness in ACTA1-related nemaline myopathy (NEM3). *Annals of Neurology*, **2018**, 83, 269-282	9.4	10
64	Blebbistatin Effects Expose Hidden Secrets in the Force-Generating Cycle of Actin and Myosin. *Biophysical Journal*, **2018**, 115, 386-397	2.9	21
63	Do Actomyosin Single-Molecule Mechanics Data Predict Mechanics of Contracting Muscle?. *International Journal of Molecular Sciences*, **2018**, 19,	6.3	19
62	Hypertrophic cardiomyopathy R403Q mutation in rabbit β-myosin reduces contractile function at the molecular and myofibrillar levels. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 11238-11243	11.5	16
61	Sarcomere mechanics in striated muscles: from molecules to sarcomeres to cells. *American Journal of Physiology - Cell Physiology*, **2017**, 313, C134-C145	5.4	36
60	Residual force enhancement is regulated by titin in skeletal and cardiac myofibrils. *Journal of Physiology*, **2017**, 595, 2085-2098	3.9	24
59	Prolonged force depression after mechanically demanding contractions is largely independent of Ca and reactive oxygen species. *FASEB Journal*, **2017**, 31, 4809-4820	0.9	19
58	Microfluidic perfusion shows intersarcomere dynamics within single skeletal muscle myofibrils. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 8794-8799	11.5	10
57	Sarcomere Stiffness during Stretching and Shortening of Rigor Skeletal Myofibrils. *Biophysical Journal*, **2017**, 113, 2768-2776	2.9	5
56	Length-dependent Ca2+ activation in skeletal muscle fibers from mammalians. *American Journal of Physiology - Cell Physiology*, **2016**, 311, C201-11	5.4	2
55	Reply to "Letter to the editor: Comments on Cornachione et al. (2016): "The increase in non-cross-bridge forces after stretch of activated striated muscle is related to titin isoforms". *American Journal of Physiology - Cell Physiology*, **2016**, 311, C160-1	5.4	2
54	Reply to "Letter to the editor: Titin-actin interaction: the report of its death was an exaggeration". *American Journal of Physiology - Cell Physiology*, **2016**, 310, C623	5.4	2
53	Reactive oxygen/nitrogen species and contractile function in skeletal muscle during fatigue and recovery. *Journal of Physiology*, **2016**, 594, 5149-60	3.9	71
52	Reduced passive force in skeletal muscles lacking protein arginylation. *American Journal of Physiology - Cell Physiology*, **2016**, 310, C127-35	5.4	15
51	Reduction in single muscle fiber rate of force development with aging is not attenuated in world class older masters athletes. *American Journal of Physiology - Cell Physiology*, **2016**, 310, C318-27	5.4	32
50	Chapter 7 The Static Tension in Skeletal Muscles and Its Regulation by Titin **2016**, 193-208		
49	Posttranslational Arginylation Regulates Striated Muscle Function. *Exercise and Sport Sciences Reviews*, **2016**, 44, 98-103	6.7	5
48	Prolonged controlled mechanical ventilation in humans triggers myofibrillar contractile dysfunction and myofilament protein loss in the diaphragm. *Thorax*, **2016**, 71, 436-45	7.3	36

47	Two Kinases to Soften the Heart. *Biophysical Journal*, **2016**, 110, 289-291	2.9	
46	The increase in non-cross-bridge forces after stretch of activated striated muscle is related to titin isoforms. *American Journal of Physiology - Cell Physiology*, **2016**, 310, C19-26	5.4	44
45	MgADP activation contributes to force enhancement during fast stretch of isolated skeletal myofibrils. *Biochemical and Biophysical Research Communications*, **2015**, 463, 1129-34	3.4	8
44	Non-crossbridge forces in activated striated muscles: a titin dependent mechanism of regulation?. *Journal of Muscle Research and Cell Motility*, **2015**, 36, 37-45	3.5	26
43	Masticatory muscles of mouse do not undergo atrophy in space. *FASEB Journal*, **2015**, 29, 2769-79	0.9	16
42	Residual force depression in single sarcomeres is abolished by MgADP-induced activation. *Scientific Reports*, **2015**, 5, 10555	4.9	4
41	Thixotropy and rheopexy of muscle fibers probed using sinusoidal oscillations. *PLoS ONE*, **2015**, 10, e0124726	3.7	13
40	Poorly understood aspects of striated muscle contraction. *BioMed Research International*, **2015**, 2015, 245154	3	34
39	Nitrosative modifications of the Ca2+ release complex and actin underlie arthritis-induced muscle weakness. *Annals of the Rheumatic Diseases*, **2015**, 74, 1907-14	2.4	34
38	Arginylation of myosin heavy chain regulates skeletal muscle strength. *Cell Reports*, **2014**, 8, 470-6	10.6	25
37	Force produced after stretch in sarcomeres and half-sarcomeres isolated from skeletal muscles. *Scientific Reports*, **2013**, 3, 2320	4.9	25
36	Forces measured with micro-fabricated cantilevers during actomyosin interactions produced by filaments containing different myosin isoforms and loop 1 structures. *Biochimica Et Biophysica Acta - General Subjects*, **2013**, 1830, 2710-2719	4	9
35	Contractility of myofibrils from the heart and diaphragm muscles measured with atomic force cantilevers: effects of heart-specific deletion of arginyl-tRNA-protein transferase. *International Journal of Cardiology*, **2013**, 168, 3564-71	3.2	16
34	The effects of Ca2+ and MgADP on force development during and after muscle length changes. *PLoS ONE*, **2013**, 8, e68866	3.7	14
33	A non-cross-bridge, static tension is present in permeabilized skeletal muscle fibers after active force inhibition or actin extraction. *American Journal of Physiology - Cell Physiology*, **2012**, 302, C566-74	5.4	32
32	Residual force enhancement in skeletal muscles: one sarcomere after the other. *Journal of Muscle Research and Cell Motility*, **2012**, 33, 155-65	3.5	24
31	Arginylation regulates myofibrils to maintain heart function and prevent dilated cardiomyopathy. *Journal of Molecular and Cellular Cardiology*, **2012**, 53, 333-41	5.8	38
30	Pre-power-stroke cross-bridges contribute to force transients during imposed shortening in isolated muscle fibers. *PLoS ONE*, **2012**, 7, e29356	3.7	12

29	Force produced by isolated sarcomeres and half-sarcomeres after an imposed stretch. *American Journal of Physiology - Cell Physiology*, **2012**, 302, C240-8	5.4	39
28	The mechanisms of the residual force enhancement after stretch of skeletal muscle: non-uniformity in half-sarcomeres and stiffness of titin. *Proceedings of the Royal Society B: Biological Sciences*, **2012**, 279, 2705-13	4.4	40
27	History-dependent properties of skeletal muscle myofibrils contracting along the ascending limb of the force-length relationship. *Proceedings of the Royal Society B: Biological Sciences*, **2010**, 277, 475-84	4.4	36
26	Effects of blebbistatin and Ca2+ concentration on force produced during stretch of skeletal muscle fibers. *American Journal of Physiology - Cell Physiology*, **2010**, 299, C1127-35	5.4	21
25	A technique for simultaneous measurement of force and overlap between single muscle filaments of myosin and actin. *Biochemical and Biophysical Research Communications*, **2010**, 403, 351-6	3.4	5
24	Striated muscles: from molecules to cells. *Advances in Experimental Medicine and Biology*, **2010**, 682, 1-6	3.6	1
23	Stretch and shortening of skeletal muscles activated along the ascending limb of the force-length relation. *Advances in Experimental Medicine and Biology*, **2010**, 682, 175-89	3.6	5
22	Contractile characteristics of sarcomeres arranged in series or mechanically isolated from myofibrils. *Advances in Experimental Medicine and Biology*, **2010**, 682, 123-40	3.6	12
21	The mechanical behavior of individual sarcomeres of myofibrils isolated from rabbit psoas muscle. *American Journal of Physiology - Cell Physiology*, **2009**, 297, C1211-9	5.4	32
20	Sarcomere dynamics in skeletal muscle myofibrils during isometric contractions. *Journal of Biomechanics*, **2009**, 42, 2808-12	2.9	23
19	Molecular basis of force development by skeletal muscles during and after stretch. *MCB Molecular and Cellular Biomechanics*, **2009**, 6, 229-41	1.2	1
18	Pre-power stroke cross bridges contribute to force during stretch of skeletal muscle myofibrils. *Proceedings of the Royal Society B: Biological Sciences*, **2008**, 275, 2577-86	4.4	47
17	Staircase but not posttetanic potentiation in rat muscle after spinal cord hemisection. *Muscle and Nerve*, **2008**, 38, 1455-1465	3.4	11
16	Modulation of passive force in single skeletal muscle fibres. *Biology Letters*, **2005**, 1, 342-5	3.6	28
15	Relationship between force and stiffness in muscle fibers after stretch. *Journal of Applied Physiology*, **2005**, 99, 1769-75	3.7	29
14	Force enhancement and relaxation rates after stretch of activated muscle fibres. *Proceedings of the Royal Society B: Biological Sciences*, **2005**, 272, 475-80	4.4	16
13	Active force inhibition and stretch-induced force enhancement in frog muscle treated with BDM. *Journal of Applied Physiology*, **2004**, 97, 1395-400	3.7	53
12	Force enhancement in single skeletal muscle fibres on the ascending limb of the force-length relationship. *Journal of Experimental Biology*, **2004**, 207, 2787-91	3	67

11	Effects of shortening on stretch-induced force enhancement in single skeletal muscle fibers. *Journal of Biomechanics*, **2004**, 37, 1305-12	2.9	33
10	Considerations on the history dependence of muscle contraction. *Journal of Applied Physiology*, **2004**, 96, 419-27	3.7	65
9	Stretch-induced, steady-state force enhancement in single skeletal muscle fibers exceeds the isometric force at optimum fiber length. *Journal of Biomechanics*, **2003**, 36, 1309-16	2.9	80
8	Dynamics of individual sarcomeres during and after stretch in activated single myofibrils. *Proceedings of the Royal Society B: Biological Sciences*, **2003**, 270, 1735-40	4.4	74
7	Stretch-induced force enhancement and stability of skeletal muscle myofibrils. *Advances in Experimental Medicine and Biology*, **2003**, 538, 501-15; discussion 515	3.6	34
6	Effects of pH on the length-dependent twitch potentiation in skeletal muscle. *Journal of Applied Physiology*, **2002**, 92, 1293-9	3.7	14
5	Sarcomere length-dependence of activity-dependent twitch potentiation in mouse skeletal muscle. *BMC Physiology*, **2002**, 2, 19	0	19
4	Length-dependent twitch contractile characteristics of skeletal muscle. *Canadian Journal of Physiology and Pharmacology*, **2002**, 80, 993-1000	2.4	24
3	Force enhancement following an active stretch in skeletal muscle. *Journal of Electromyography and Kinesiology*, **2002**, 12, 471-7	2.5	20
2	The effects of length on fatigue and twitch potentiation in human skeletal muscle. *Clinical Physiology*, **2000**, 20, 474-82		37
1	Attenuation of myosin light chain phosphorylation and posttetanic potentiation in atrophied skeletal muscle. *Pflugers Archiv European Journal of Physiology*, **1997**, 434, 848-51	4.6	23