Kenneth S Campbell

List of Publications by Year
in descending order

92 papers	3,808 citations	159585 30 h-index	138484 58 g-index
99 all docs	99 docs citations	99 times ranked	4504 citing authors

#	Article	IF	Citations
1	Titin-truncating mutations associated with dilated cardiomyopathy alter length-dependent activation and its modulation via phosphorylation. Cardiovascular Research, 2022, 118, 241-253.	3.8	16
2	FiberSim: A flexible open-source model of myofilament-level contraction. Biophysical Journal, 2022, 121, 175-182.	0.5	13
3	Functional and structural differences between skinned and intact muscle preparations. Journal of General Physiology, 2022, 154, .	1.9	4
4	Reproducibility of Systolic Strain in Mice Using Cardiac Magnetic Resonance Feature Tracking of Black-Blood Cine Images. Cardiovascular Engineering and Technology, 2022, , 1.	1.6	0
5	An expanding explanation for the ascending limb of muscleâ€™s active force-length relationship. Biophysical Journal, 2022, , .	0.5	0
6	Prior Freezing Has Minimal Impact on the Contractile Properties of Permeabilized Human Myocardium. Journal of the American Heart Association, 2022, 11, e023010.	3.7	2
7	Chaperone-mediated autophagy protects cardiomyocytes against hypoxic-cell death. American Journal of Physiology - Cell Physiology, 2022, 323, C1555-C1575.	4.6	15
8	<scp>SUMOylation</scp> does not affect cardiac troponin I stability but alters indirectly the development of force in response to Ca²⁺. FEBS Journal, 2022, 289, 6267-6285.	4.7	2
9	Integrated multi-omic characterization of congenital heart disease. Nature, 2022, 608, 181-191.	27.8	37
10	Fast-relaxing cardiomyocytes exert a dominant role in the relaxation behavior of heterogeneous myocardium. Archives of Biochemistry and Biophysics, 2021, 697, 108711.	3.0	4
11	Impact of regulatory light chain mutation K104E on the ATPase and motor properties of cardiac myosin. Journal of General Physiology, 2021, 153, .	1.9	8
12	Hypertrophic cardiomyopathy Î²-cardiac myosin mutation (P710R) leads to hypercontractility by disrupting super relaxed state. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	43
13	Multiscale simulations of left ventricular growth and remodeling. Biophysical Reviews, 2021, 13, 729-746.	3.2	13
14	Renal Angiotensinogen Is Predominantly Liver Derived in Nonhuman Primates. Arteriosclerosis, Thrombosis, and Vascular Biology, 2021, 41, 2851-2853.	2.4	10
15	Mathematical modeling of myosin, muscle contraction, and movement. Archives of Biochemistry and Biophysics, 2021, 711, 108979.	3.0	0
16	Diabetic microcirculatory disturbances and pathologic erythropoiesis are provoked by deposition of amyloid-forming amylin in red blood cells and capillaries. Kidney International, 2020, 97, 143-155.	5.2	31
17	Multiscale Modeling of Cardiovascular Function Predicts That the End-Systolic Pressure Volume Relationship Can Be Targeted via Multiple Therapeutic Strategies. Frontiers in Physiology, 2020, 11, 1043.	2.8	10
18	HeartÂFailure in Humans Reduces Contractile Force in Myocardium From Both Ventricles. JACC Basic To Translational Science, 2020, 5, 786-798.	4.1	20

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19	Effects of mavacamten on Ca²⁺ sensitivity of contraction as sarcomere length varied in human myocardium. British Journal of Pharmacology, 2020, 177, 5609-5621.	5.4	36
20	Regulation of Myofilament Contractile Function in Human Donor and Failing Hearts. Frontiers in Physiology, 2020, 11, 468.	2.8	16
21	Cardiac myosin regulatory light chain kinase modulates cardiac contractility by phosphorylating both myosin regulatory light chain and troponin I. Journal of Biological Chemistry, 2020, 295, 4398-4410.	3.4	16
22	Force-dependent recruitment from myosin OFF-state increases end-systolic pressureâ€“volume relationship in left ventricle. Biomechanics and Modeling in Mechanobiology, 2020, 19, 2683-2692.	2.8	9
23	Diverse and complex muscle spindle afferent firing properties emerge from multiscale muscle mechanics. ELife, 2020, 9, .	6.0	37
24	Closing the therapeutic loop. Archives of Biochemistry and Biophysics, 2019, 663, 129-131.	3.0	11
25	Muscle thixotropyâ€"where are we now?. Journal of Applied Physiology, 2019, 126, 1790-1799.	2.5	32
26	The Heart by Numbers. Biophysical Journal, 2019, 117, E1-E3.	0.5	0
27	Differential Effects of Isoproterenol on Regional Myocardial Mechanics in Rat Using Three-Dimensional Cine DENSE Cardiovascular Magnetic Resonance. Journal of Biomechanical Engineering, 2019, 141, .	1.3	1
28	A short history of the development of mathematical models of cardiac mechanics. Journal of Molecular and Cellular Cardiology, 2019, 127, 11-19.	1.9	44
29	MyoVision: software for automated high-content analysis of skeletal muscle immunohistochemistry. Journal of Applied Physiology, 2018, 124, 40-51.	2.5	161
30	Diabetes with heart failure increases methylglyoxal modifications in the sarcomere, which inhibit function. JCI Insight, 2018, 3, .	5.0	50
31	Evaluation of a Novel Finite Element Model of Active Contraction in the Heart. Frontiers in Physiology, 2018, 9, 425.	2.8	13
32	Force-Dependent Recruitment from the Myosin Off State Contributes to Length-Dependent Activation. Biophysical Journal, 2018, 115, 543-553.	0.5	54
33	Myocardial relaxation is accelerated by fast stretch, not reduced afterload. Journal of Molecular and Cellular Cardiology, 2017, 103, 65-73.	1.9	28
34	Omecamtiv Mecarbil Enhances the Duty Ratio of Human Î²-Cardiac Myosin Resulting in Increased Calcium Sensitivity and Slowed Force Development in Cardiac Muscle. Journal of Biological Chemistry, 2017, 292, 3768-3778.	3.4	82
35	Superâ€relaxation helps muscles work more efficiently. Journal of Physiology, 2017, 595, 1007-1008.	2.9	4
36	Regional quantification of myocardial mechanics in rat using 3D cine DENSE cardiovascular magnetic resonance. NMR in Biomedicine, 2017, 30, e3733.	2.8	8

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37	The effects of pH and Pi on tension and Ca2+ sensitivity of ventricular myofilaments from the anoxia-tolerant painted turtle. Journal of Experimental Biology, 2017, 220, 4234-4241.	1.7	8
38	Abnormal contractility in human heart myofibrils from patients with dilated cardiomyopathy due to mutations in TTN and contractile protein genes. Scientific Reports, 2017, 7, 14829.	3.3	40
39	No Difference in Myosin Kinetics and Spatial Distribution of the Lever Arm in the Left and Right Ventricles of Human Hearts. Frontiers in Physiology, 2017, 8, 732.	2.8	2
40	Differential effects of isoproterenol and omecamtiv mecarbil on the contractile properties of unloaded myocytes. FASEB Journal, 2017, 31, .	0.5	0
41	Computational Investigation of Transmural Differences in Left Ventricular Contractility. Journal of Biomechanical Engineering, 2016, 138, .	1.3	10
42	Compliance Accelerates Relaxation in Muscle by Allowing Myosin Heads to Move Relative to Actin. Biophysical Journal, 2016, 110, 661-668.	0.5	23
43	Modulating Beta-Cardiac Myosin Function at the Molecular and Tissue Levels. Frontiers in Physiology, 2016, 7, 659.	2.8	16
44	A Protocol for Collecting Human Cardiac Tissue for Research. The VAD Journal: the Journal of Mechanical Assisted Circulation and Heart Failure, 2016, 2, .	2.0	19
45	The Effect of Intracellular pH on Myocardial Calcium Sensitivity in the Anoxiaâ€Tolerant Painted Turtle. FASEB Journal, 2016, 30, 760.22.	0.5	0
46	Myocardial Strain Rate Modulates the Speed of Relaxation in Dynamically Loaded Twitch Contractions. Biophysical Journal, 2015, 108, 200a.	0.5	1
47	Myocyte contractility can be maintained by storing cells with the myosin ATPase inhibitor 2,3 butanedione monoxime. Physiological Reports, 2015, 3, e12445.	1.7	7
48	Cell- and molecular-level mechanisms contributing to diastolic dysfunction in HFpEF. Journal of Applied Physiology, 2015, 119, 1228-1232.	2.5	15
49	Numerical Evaluation of Myofiber Orientation and Transmural Contractile Strength on Left Ventricular Function. Journal of Biomechanical Engineering, 2015, 137, 044502.	1.3	21
50	Attenuated sarcomere lengthening of the aged murine left ventricle observed using two-photon fluorescence microscopy. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H918-H925.	3.2	19
51	Myocardial hypertrophy reduces transmural variation in mitochondrial function. Frontiers in Physiology, 2014, 5, 178.	2.8	3
52	Increased myocardial short-range forces in a rodent model of diabetes reflect elevated content of Î² myosin heavy chain. Archives of Biochemistry and Biophysics, 2014, 552-553, 92-99.	3.0	7
53	Transmural heterogeneity of cellular level power output is reduced in human heart failure. Journal of Molecular and Cellular Cardiology, 2014, 72, 1-8.	1.9	49
54	Dynamic coupling of regulated binding sites and cycling myosin heads in striated muscle. Journal of General Physiology, 2014, 143, 387-399.	1.9	34

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55	End Systolic Strain Rate, not Afterload, Controls Myocardial Relaxation. Biophysical Journal, 2014, 106, 646a.	0.5	1
56	Temperature and transmural region influence functional measurements in unloaded left ventricular cardiomyocytes. Physiological Reports, 2013, 1, e00158.	1.7	19
57	Altered ventricular torsion and transmural patterns of myocyte relaxation precede heart failure in aging F344 rats. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 305, H676-H686.	3.2	37
58	Effect of muscle length on cross-bridge kinetics in intact cardiac trabeculae at body temperature. Journal of General Physiology, 2013, 141, 133-139.	1.9	38
59	Genomeâ€wide expression analysis and EMX2 gene expression in embryonic myoblasts committed to diverse skeletal muscle fiber type fates. Developmental Dynamics, 2013, 242, 1001-1020.	1.8	8
60	Development of dilated cardiomyopathy in<i>Bmal1</i>-deficient mice. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 303, H475-H485.	3.2	127
61	Satellite cell depletion does not inhibit adult skeletal muscle regrowth following unloading-induced atrophy. American Journal of Physiology - Cell Physiology, 2012, 303, C854-C861.	4.6	122
62	High-Risk Long QT Syndrome Mutations in the Kv7.1 (KCNQ1) Pore Disrupt the Molecular Basis for Rapid K⁺ Permeation. Biochemistry, 2012, 51, 9076-9085.	2.5	17
63	Sphingomyelinase depresses force and calcium sensitivity of the contractile apparatus in mouse diaphragm muscle fibers. Journal of Applied Physiology, 2012, 112, 1538-1545.	2.5	27
64	Impact of myocyte strain on cardiac myofilament activation. Pflugers Archiv European Journal of Physiology, 2011, 462, 3-14.	2.8	38
65	Mechanisms of residual force enhancement in skeletal muscle: insights from experiments and mathematical models. Biophysical Reviews, 2011, 3, 199-207.	3.2	44
66	Effective fiber hypertrophy in satellite cell-depleted skeletal muscle. Development (Cambridge), 2011, 138, 3657-3666.	2.5	531
67	Effectiveness of Sulfur-Containing Antioxidants in Delaying Skeletal Muscle Fatigue. Medicine and Science in Sports and Exercise, 2011, 43, 1025-1031.	0.4	13
68	A Mathematical Model of Muscle Containing Heterogeneous Half-Sarcomeres Exhibits Residual Force Enhancement. PLoS Computational Biology, 2011, 7, e1002156.	3.2	45
69	CLOCK and BMAL1 regulate <i>MyoD</i> and are necessary for maintenance of skeletal muscle phenotype and function. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19090-19095.	7.1	299
70	Distorting the sarcomere. Journal of General Physiology, 2010, 136, 155-157.	1.9	0
71	Coupling of Adjacent Tropomyosins Enhances Cross-Bridge-Mediated Cooperative Activation in a Markov Model of the Cardiac Thin Filament. Biophysical Journal, 2010, 98, 2254-2264.	0.5	79
72	Short-Range Mechanical Properties of Skeletal and Cardiac Muscles. Advances in Experimental Medicine and Biology, 2010, 682, 223-246.	1.6	15

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73	Distinct growth hormone receptor signaling modes regulate skeletal muscle development and insulin sensitivity in mice. Journal of Clinical Investigation, 2010, 120, 4007-4020.	8.2	171
74	Interactions between Connected Half-Sarcomeres Produce Emergent Mechanical Behavior in a Mathematical Model of Muscle. PLoS Computational Biology, 2009, 5, e1000560.	3.2	75
75	GelBandFitter â€" A computer program for analysis of closely spaced electrophoretic and immunoblotted bands. Electrophoresis, 2009, 30, 848-851.	2.4	29
76	Myocardial short-range force responses increase with age in F344 rats. Journal of Molecular and Cellular Cardiology, 2009, 46, 39-46.	1.9	14
77	Short-range Mechanical Properties Simulated With A Mathematical Model Incorporating Multiple Half-sarcomeres. Biophysical Journal, 2009, 96, 615a.	0.5	1
78	Response to Bianco et al.: Interaction Forces between F-actin and Titin PEVK Domain Measured with Optical Tweezers. Biophysical Journal, 2008, 94, 327-328.	0.5	5
79	TNF-Î± acts via TNFR1 and muscle-derived oxidants to depress myofibrillar force in murine skeletal muscle. Journal of Applied Physiology, 2008, 104, 694-699.	2.5	118
80	The rate of tension recovery in cardiac muscle correlates with the relative residual tension prevailing after restretch. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2020-H2022.	3.2	11
81	Identification of the circadian transcriptome in adult mouse skeletal muscle. Physiological Genomics, 2007, 31, 86-95.	2.3	300
82	Tension Recovery in Permeabilized Rat Soleus Muscle Fibers after Rapid Shortening and Restretch. Biophysical Journal, 2006, 90, 1288-1294.	0.5	21
83	Filament Compliance Effects Can Explain Tension Overshoots during Force Development. Biophysical Journal, 2006, 91, 4102-4109.	0.5	46
84	Developmental changes in rat cardiac titin/connectin: transitions in normal animals and in mutants with a delayed pattern of isoform transition. Journal of Muscle Research and Cell Motility, 2006, 26, 325-332.	2.0	56
85	Antioxidants attenuate TNFâ€Î± induced contractile dysfunction: alterations in myofibrillar function. FASEB Journal, 2006, 20, A809.	0.5	0
86	Titin isoform changes in rat myocardium during development. Mechanisms of Development, 2004, 121, 1301-1312.	1.7	96
87	Cycling Cross-Bridges Increase Myocardial Stiffness at Submaximal Levels of Ca2+ Activation. Biophysical Journal, 2003, 84, 3807-3815.	0.5	32
88	SLControl: PC-based data acquisition and analysis for muscle mechanics. American Journal of Physiology - Heart and Circulatory Physiology, 2003, 285, H2857-H2864.	3.2	51
89	History-Dependent Mechanical Properties of Permeabilized Rat Soleus Muscle Fibers. Biophysical Journal, 2002, 82, 929-943.	0.5	91
90	Cooperative Mechanisms in the Activation Dependence of the Rate of Force Development in Rabbit Skinned Skeletal Muscle Fibers. Journal of General Physiology, 2001, 117, 133-148.	1.9	60

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91	A thixotropic effect in contracting rabbit psoas muscle: prior movement reduces the initial tension response to stretch. Journal of Physiology, 2000, 525, 531-548.	2.9	50
92	A Protocol for Collecting Human Cardiac Tissue for Research. The VAD Journal: the Journal of Mechanical Assisted Circulation and Heart Failure, 0, , .	2.0	8