P Bryant Chase

List of Publications by Year
in descending order

112 papers	3,050 citations	159358 30 h-index	174990 52 g-index
115 all docs	115 docs citations	115 times ranked	2284 citing authors

#	Article	IF	Citations
1	Mechanism(s) of regulation of the cardiac thin filament: new perspectives for a longstanding enigma. Biophysical Journal, 2022, 121, 2a.	0.2	0
2	Human cardiac troponin T amino terminus is required for inhibition and cooperative activation of Ca2+-dependent thin filament sliding. Biophysical Journal, 2022, 121, 37a.	0.2	0
3	Post-translational modification patterns on Î²-myosin heavy chain are altered in ischemic and nonischemic human hearts. ELife, 2022, 11, .	2.8	10
4	Anomalous structural dynamics of minimally frustrated residues in cardiac troponin C triggers hypertrophic cardiomyopathy. Chemical Science, 2021, 12, 7308-7323.	3.7	7
5	Conditional Knock-Out of Cardiac Myosin Light Chain Kinase Ameliorates Hypertrophic Cardiomyopathy Phenotype in a Murine Model. Biophysical Journal, 2021, 120, 343a.	0.2	0
6	The structure of the native cardiac thin filament at systolic Ca ²⁺ levels. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	52
7	Mandibular muscle troponin of the Florida carpenter ant Camponotus floridanus: extending our insights into invertebrate Ca2+ regulation. Journal of Muscle Research and Cell Motility, 2021, 42, 399-417.	0.9	3
8	Systemic delivery of a mitochondria targeted antioxidant partially preserves limb muscle mass and grip strength in response to androgen deprivation. Molecular and Cellular Endocrinology, 2021, 535, 111391.	1.6	3
9	Abstract P417: Cardiomyopathy-associated Variant In Troponin T Tail Domain Promotes Disruption Of Both Frank-starling Mechanism And Cardiac Myofilament Performance. Circulation Research, 2021, 129, .	2.0	0
10	Cardiomyocyte nuclearity and ploidy: when is double trouble?. Journal of Muscle Research and Cell Motility, 2020, 41, 329-340.	0.9	9
11	Mechanical contribution to muscle thin filament activation. Journal of Biological Chemistry, 2020, 295, 15913-15922.	1.6	0
12	A comprehensive guide to genetic variants and post-translational modifications of cardiac troponin C. Journal of Muscle Research and Cell Motility, 2020, 42, 323-342.	0.9	12
13	Sexual dimorphism in cardiac transcriptome associated with a troponin C murine model of hypertrophic cardiomyopathy. Physiological Reports, 2020, 8, e14396.	0.7	7
14	Meta-analysis of cardiomyopathy-associated variants in troponin genes identifies loci and intragenic hot spots that are associated with worse clinical outcomes. Journal of Molecular and Cellular Cardiology, 2020, 142, 118-125.	0.9	30
15	Thin Filament Regulation Blends Thermodynamic and Mechanical Mechanisms. Biophysical Journal, 2019, 116, 177a-178a.	0.2	0
16	Dynamic and Structural Allosteric Events between the D/E Linker and N-Domain of Cardiac Troponin C Reveal a Novel Mechanism for Cardiac Muscle Regulation. Biophysical Journal, 2019, 116, 488a.	0.2	0
17	Annulment of Cardiac Muscle Length-Dependent Force Activation in Transgenic Mice Bearing the HcTnT-I79N Mutation. Biophysical Journal, 2019, 116, 262a-263a.	0.2	0
18	A Dynamic Situation with Uncertainty: Multiscale Modeling of Cardiac Thin-Filament Ca2+ Regulation. Biophysical Journal, 2019, 117, 2241-2243.	0.2	1

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19	The intrinsically disordered C terminus of troponin T binds to troponin C to modulate myocardial force generation. Journal of Biological Chemistry, 2019, 294, 20054-20069.	1.6	23
20	Familial Dilated Cardiomyopathy Associated With a Novel Combination of Compound Heterozygous TNNC1 Variants. Frontiers in Physiology, 2019, 10, 1612.	1.3	15
21	Elastic domains of giant proteins in striated muscle: Modeling compliance with rulers. Journal of General Physiology, 2019, 151, 619-622.	0.9	1
22	Clinical and Biophysical Characterization of a Mutation in the N-Helix Region of Cardiac Troponin C: Evidence for an Allosteric Mechanism of Contractile Dysfunction. Biophysical Journal, 2018, 114, 568a.	0.2	0
23	Aberrant Cardiac Muscle Mechanics in a Hypertrophic Cardiomyopathy Troponin T ILE79ASN Transgenic Mouse. Biophysical Journal, 2018, 114, 502a.	0.2	0
24	Cardiac Thin Filament-Mediated Calcium Sensitization Modulates Cross-Bridge Kinetics. Biophysical Journal, 2018, 114, 315a-316a.	0.2	0
25	Structural and functional impact of troponin C-mediated Ca2+ sensitization on myofilament lattice spacing and cross-bridge mechanics in mouse cardiac muscle. Journal of Molecular and Cellular Cardiology, 2018, 123, 26-37.	0.9	27
26	Troponin through the looking-glass: emerging roles beyond regulation of striated muscle contraction. Oncotarget, 2018, 9, 1461-1482.	0.8	58
27	Will you still need me (Ca²⁺, TnT, and DHPR), will you still cleave me (calpain), when I'm 64?. Aging Cell, 2017, 16, 202-204.	3.0	13
28	Thin Filament-Mediated Modulation of Mouse Cardiac Cross-Bridge Kinetics by Ca 2+ -Sensitizing Mutation CTNC-A8V or Bepridil. Biophysical Journal, 2017, 112, 559a.	0.2	0
29	Abnormal Cardiac Cross-Bridge Kinetics in a Troponin T ILE79ASN Transgenic Mouse Model. Biophysical Journal, 2017, 112, 558a-559a.	0.2	0
30	A Novel DCM-Associated Mutation in the N-Helix of Cardiac Troponin C Exhibits Impaired Contractile Kinetics and Reduced Ca 2+ -Sensitivity InÂVitro. Biophysical Journal, 2017, 112, 559a.	0.2	0
31	Hypertrophic Cardiomyopathy Cardiac Troponin C Mutations Differentially Affect Slow Skeletal and Cardiac Muscle Regulation. Frontiers in Physiology, 2017, 8, 221.	1.3	16
32	The Cooccurrence of Obesity, Osteoporosis, and Sarcopenia in the Ovariectomized Rat: A Study for Modeling Osteosarcopenic Obesity in Rodents. Journal of Aging Research, 2017, 2017, 1-11.	0.4	25
33	Commentary: Epigenetic Regulation of Phosphodiesterases 2A and 3A Underlies Compromised Î²-Adrenergic Signaling in an iPSC Model of Dilated Cardiomyopathy. Frontiers in Physiology, 2016, 7, 418.	1.3	5
34	Simultaneous Measurement of Force and Lattice Spacing in Skinned Cardiac Fibers. Biophysical Journal, 2016, 110, 120a.	0.2	0
35	Role of cardiac troponin I carboxy terminal mobile domain and linker sequence in regulating cardiac contraction. Archives of Biochemistry and Biophysics, 2016, 601, 80-87.	1.4	12
36	The functional significance of the last 5 residues of the C-terminus of cardiac troponin I. Archives of Biochemistry and Biophysics, 2016, 601, 88-96.	1.4	11

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37	Fluorescent Protein-Based Ca2+ Sensor Reveals Global, Divalent Cation-Dependent Conformational Changes in Cardiac Troponin C. PLoS ONE, 2016, 11, e0164222.	1.1	13
38	Frequency dependence of power and its implications for contractile function of muscle fibers from the digital flexors of horses. Physiological Reports, 2014, 2, e12174.	0.7	0
39	Ca2+-regulatory function of the inhibitory peptide region of cardiac troponin I is aided by the C-terminus of cardiac troponin T: Effects of familial hypertrophic cardiomyopathy mutations cTnI R145G and cTnT R278C, alone and in combination, on filament sliding. Archives of Biochemistry and Biophysics, 2014, 552-553, 11-20.	1.4	24
40	Ca2+-Regulatory Function of the Inhibitory Peptide Region of Cardiac Troponin I is Aided by the C-Terminus of Cardiac Troponin T: Effects of FHC Mutations Ctni R145G and Ctnt R278C, Alone and in Combination, on Filament Sliding. Biophysical Journal, 2014, 106, 770a.	0.2	0
41	Nuclear tropomyosin and troponin in striated muscle: new roles in a new locale?. Journal of Muscle Research and Cell Motility, 2013, 34, 275-284.	0.9	29
42	Slowed Dynamics of Thin Filament Regulatory Units Reduces Ca2+-Sensitivity of Cardiac Biomechanical Function. Cellular and Molecular Bioengineering, 2013, 6, 183-198.	1.0	13
43	Human Cardiac Troponin C undergoes Global Conformational Changes in Response to Divalent Cation Binding: Solution Studies of Fluorescent Protein Constructs by FRET and Analytical Ultracentrifugation. Biophysical Journal, 2013, 104, 448a.	0.2	0
44	Muscle fatigue and muscle weakness: what we know and what we wish we did. Frontiers in Physiology, 2013, 4, 125.	1.3	8
45	Estrogen replacement prevents ovariectomyâ€induced muscle degradation via lowering local IGFâ€1 production. FASEB Journal, 2013, 27, 852.10.	0.2	0
46	Detection of Target ssDNA Using a Microfabricated Hall Magnetometer with Correlated Optical Readout. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-10.	3.0	6
47	Bionanotechnology and Nanomedicine. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-1.	3.0	0
48	Micromechanical Thermal Assays of Ca2+-Regulated Thin-Filament Function and Modulation by Hypertrophic Cardiomyopathy Mutants of Human Cardiac Troponin. Journal of Biomedicine and Biotechnology, 2012, 2012, 1-13.	3.0	18
49	Familial hypertrophic cardiomyopathy related E180G mutation increases flexibility of human cardiac Î±â€tropomyosin. FEBS Letters, 2012, 586, 3503-3507.	1.3	26
50	Nuclear cardiac troponin and tropomyosin are expressed early in cardiac differentiation of rat mesenchymal stem cells. Differentiation, 2012, 83, 106-115.	1.0	57
51	Persistence Length of Human Cardiac Î±-Tropomyosin Implies Near-Neighbor Cooperative Activation of Cardiac Thin Filaments. Biophysical Journal, 2012, 102, 230a.	0.2	1
52	Persistence Length of Human Cardiac Î±-Tropomyosin Measured by Single Molecule Direct Probe Microscopy. PLoS ONE, 2012, 7, e39676.	1.1	26
53	Tropomyosin Flexural Rigidity and Single Ca2+ Regulatory Unit Dynamics: Implications for Cooperative Regulation of Cardiac Muscle Contraction and Cardiomyocyte Hypertrophy. Frontiers in Physiology, 2012, 3, 80.	1.3	30
54	Enhanced Active Cross-Bridges during Diastole: Molecular Pathogenesis of Tropomyosin's HCM Mutations. Biophysical Journal, 2011, 100, 1014-1023.	0.2	59

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55	Flexibility Change in Human Cardiac Î±-Tropomyosin E180G Mutant: Possible Link to Cardiac Hypertrophy. Biophysical Journal, 2011, 100, 586a.	0.2	1
56	Several cardiomyopathy causing mutations on tropomyosin either destabilize the active state of actomyosin or alter the binding properties of tropomyosin. Biochemical and Biophysical Research Communications, 2011, 406, 74-78.	1.0	28
57	Functionalized SnO2 nanobelt field-effect transistor sensors for label-free detection of cardiac troponin. Biosensors and Bioelectronics, 2011, 26, 4538-4544.	5.3	74
58	Age-related changes in rat bone-marrow mesenchymal stem cell plasticity. BMC Cell Biology, 2011, 12, 44.	3.0	141
59	Interaction Between Troponin and Myosin Enhances Contractile Activity of Myosin in Cardiac Muscle. DNA and Cell Biology, 2011, 30, 653-659.	0.9	17
60	Facilitated Cross-Bridge Interactions with Thin Filaments by Familial Hypertrophic Cardiomyopathy Mutations inÎ±-Tropomyosin. Journal of Biomedicine and Biotechnology, 2011, 2011, 1-12.	3.0	27
61	Dynamic micro-Hall detection of superparamagnetic beads in a microfluidic channel. Journal of Magnetism and Magnetic Materials, 2010, 322, L69-L72.	1.0	15
62	Contractile properties of muscle fibers from the deep and superficial digital flexors of horses. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 299, R996-R1005.	0.9	17
63	Mechanical Properties of Human Cardiac Tropomyosin in Familial Hypertrophic Cardiomyopathy (FHC) Probed by Atomic Force Microscopy. Biophysical Journal, 2010, 98, 351a.	0.2	0
64	Molecular Function of the C-terminal Domain of Cardiac Troponin I. Biophysical Journal, 2010, 98, 357a.	0.2	1
65	The detection of specific biomolecular interactions with micro-Hall magnetic sensors. Nanotechnology, 2009, 20, 355501.	1.3	38
66	Effects of Elevated Solvent Viscosity on Calcium Dependence of Cardiac Myofilament Contractility. Biophysical Journal, 2009, 96, 375a-376a.	0.2	0
67	Increased intracellular [dATP] enhances cardiac contraction in embryonic chick cardiomyocytes. Journal of Cellular Biochemistry, 2008, 104, 2217-2227.	1.2	11
68	Molecular Motor-Based Assays for Altered Nanomechanical Function of Ca2+-Regulatory Proteins in Cardiomyopathies. Materials Research Society Symposia Proceedings, 2008, 1096, 20201.	0.1	0
69	Selective Assembly and Guiding of Actomyosin Using Carbon Nanotube Network Monolayer Patterns. Langmuir, 2007, 23, 9535-9539.	1.6	12
70	Spatially explicit, nano-mechanical models of the muscle half-sarcomere: Implications for biomechanical tuning in atrophy and fatigue. Acta Astronautica, 2007, 60, 111-118.	1.7	1
71	Computational simulation of hypertrophic cardiomyopathy mutations in Troponin I: Influence of increased myofilament calcium sensitivity on isometric force, ATPase and [Ca2+]i. Journal of Biomechanics, 2007, 40, 2044-2052.	0.9	31
72	Thin-filament regulation of force redevelopment kinetics in rabbit skeletal muscle fibres. Journal of Physiology, 2007, 579, 313-326.	1.3	23

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73	Tropomyosin in the groove? Molecular insights into an inherited myopathy. Journal of Physiology, 2007, 581, 889-889.	1.3	1
74	Positive Inotropic Effects of Low dATP/ATP Ratios on Mechanics and Kinetics of Porcine Cardiac Muscle. Biophysical Journal, 2006, 91, 2216-2226.	0.2	28
75	Selective Assembly and Alignment of Actin Filaments with Desired Polarity on Solid Substrates. Langmuir, 2006, 22, 8635-8638.	1.6	20
76	Ca2+sensitivity of regulated cardiac thin filament sliding does not depend on myosin isoform. Journal of Physiology, 2006, 577, 935-944.	1.3	28
77	Effects of temperature, ionic strength and pH on the function of skeletal muscle myosin from a eurythermal fish, Fundulus heteroclitus. Journal of Muscle Research and Cell Motility, 2005, 26, 191-197.	0.9	10
78	Effects of Rapamycin on Cardiac and Skeletal Muscle Contraction and Crossbridge Cycling. Journal of Pharmacology and Experimental Therapeutics, 2005, 312, 12-18.	1.3	20
79	Packaging actomyosin-based biomolecular motor-driven devices for nanoactuator applications. IEEE Transactions on Advanced Packaging, 2005, 28, 556-563.	1.7	19
80	Highly Selective Directed Assembly of Functional Actomyosin on Au Surfaces. Langmuir, 2005, 21, 3213-3216.	1.6	30
81	All-electrical switching and control mechanism for actomyosin-powered nanoactuators. Applied Physics Letters, 2004, 85, 1060-1062.	1.5	39
82	A Spatially Explicit Nanomechanical Model of the Half-Sarcomere: Myofilament Compliance Affects Ca2+-Activation. Annals of Biomedical Engineering, 2004, 32, 1559-1568.	1.3	60
83	The Î”14 Mutation of Human Cardiac Troponin T Enhances ATPase Activity and Alters the Cooperative Binding of S1-ADP to Regulated Actinâ€. Biochemistry, 2004, 43, 15276-15285.	1.2	41
84	Actomyosin-Driven Motility on Patterned Polyelectrolyte Mono- and Multilayers. Nano Letters, 2003, 3, 1505-1509.	4.5	52
85	Ca2+ Regulation of Rabbit Skeletal Muscle Thin Filament Sliding: Role of Cross-Bridge Number. Biophysical Journal, 2003, 85, 1775-1786.	0.2	32
86	Familial hypertrophic cardiomyopathy mutations in troponin I (K183Î”, G203S, K206Q) enhance filament sliding. Physiological Genomics, 2003, 14, 117-128.	1.0	65
87	A Simple Model with Myofilament Compliance Predicts Activation-Dependent Crossbridge Kinetics in Skinned Skeletal Fibers. Biophysical Journal, 2002, 83, 3425-3434.	0.2	48
88	Thin filament nearâ€neighbour regulatory unit interactions affect rabbit skeletal muscle steadyâ€state forceâ€Ca2+relations. Journal of Physiology, 2002, 540, 485-497.	1.3	78
89	Dimethyl sulphoxide enhances the effects of Pi in myofibrils and inhibits the activity of rabbit skeletal muscle contractile proteins. Biochemical Journal, 2001, 358, 627.	1.7	14
90	Dimethyl sulphoxide enhances the effects of Pi in myofibrils and inhibits the activity of rabbit skeletal muscle contractile proteins. Biochemical Journal, 2001, 358, 627-636.	1.7	16

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91	Viscosity and solute dependence of F-actin translocation by rabbit skeletal heavy meromyosin. American Journal of Physiology - Cell Physiology, 2000, 278, C1088-C1098.	2.1	28
92	2-Deoxy-ATP Enhances Contractility of Rat Cardiac Muscle. Circulation Research, 2000, 86, 1211-1217.	2.0	80
93	Contractile properties of rabbit psoas muscle fibres inhibited by beryllium fluoride. Journal of Muscle Research and Cell Motility, 1999, 20, 425-432.	0.9	10
94	Ca2+ and Cross-Bridge-Induced Changes in Troponin C in Skinned Skeletal Muscle Fibers: Effects of Force Inhibition. Biophysical Journal, 1999, 76, 1480-1493.	0.2	35
95	Regulation of Skeletal Muscle Tension Redevelopment by Troponin C Constructs with Different Ca2+ Affinities. Biophysical Journal, 1999, 76, 2664-2672.	0.2	41
96	Effect of Viscosity on Mechanics of Single, Skinned Fibers from Rabbit Psoas Muscle. Biophysical Journal, 1998, 74, 1428-1438.	0.2	25
97	Compliant Realignment of Binding Sites in Muscle: Transient Behavior and Mechanical Tuning. Biophysical Journal, 1998, 74, 1611-1621.	0.2	140
98	Calcium Regulation of Tension Redevelopment Kinetics with 2-Deoxy-ATP or Low [ATP] in Rabbit Skeletal Muscle. Biophysical Journal, 1998, 74, 2005-2015.	0.2	88
99	Calcium regulation of skeletal muscle thin filament motility in vitro. Biophysical Journal, 1997, 72, 1295-1307.	0.2	113
100	Calmidazolium alters Ca2+ regulation of tension redevelopment rate in skinned skeletal muscle. Biophysical Journal, 1996, 71, 2786-2794.	0.2	46
101	Faster force transient kinetics at submaximal Ca2+ activation of skinned psoas fibers from rabbit. Biophysical Journal, 1995, 68, 235-242.	0.2	17
102	Activation dependence and kinetics of force and stiffness inhibition by aluminiofluoride, a slowly dissociating analogue of inorganic phosphate, in chemically skinned fibres from rabbit psoas muscle. Journal of Muscle Research and Cell Motility, 1994, 15, 119-129.	0.9	34
103	Unloaded shortening of skinned muscle fibers from rabbit activated with and without Ca2+. Biophysical Journal, 1994, 67, 1984-1993.	0.2	40
104	Isometric force redevelopment of skinned muscle fibers from rabbit activated with and without Ca2+. Biophysical Journal, 1994, 67, 1994-2001.	0.2	75
105	Calcium-independent activation of skeletal muscle fibers by a modified form of cardiac troponin C. Biophysical Journal, 1993, 64, 1632-1637.	0.2	23
106	Effects of inorganic phosphate analogues on stiffness and unloaded shortening of skinned muscle fibres from rabbit.. Journal of Physiology, 1993, 460, 231-246.	1.3	68
107	Antibody and peptide probes of interactions between the SH1-SH2 region of myosin subfragment 1 and actin's N-terminus. Biochemistry, 1992, 31, 10929-10935.	1.2	5
108	High-performance liquid chromatographic assays for free and phosphorylated derivatives of the creatine analogues Î²-guanidopropionic acid and 1-carboxymethyl-2-iminoimidazolidine (cyclocreatine). Analytical Biochemistry, 1992, 204, 383-389.	1.1	58

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109	Molecular charge dominates the inhibition of actomyosin in skinned muscle fibers by SH1 peptides. Biophysical Journal, 1991, 60, 352-359.	0.2	8
110	Effects of pH on contraction of rabbit fast and slow skeletal muscle fibers. Biophysical Journal, 1988, 53, 935-946.	0.2	267
111	Permeation and interaction of divalent cations in calcium channels of snail neurons.. Journal of General Physiology, 1985, 85, 491-518.	0.9	100
112	Calcium current activation kinetics in neurones of the snail Lymnaea stagnalis.. Journal of Physiology, 1984, 348, 187-207.	1.3	61