Charles S Chung

List of Publications by Year
in descending order

59 papers	1,269 citations	304743 22 h-index	361022 35 g-index
59 all docs	59 docs citations	59 times ranked	1530 citing authors

#	Article	IF	Citations
1	Reduced preload increases Mechanical Control (strain-rate dependence) of Relaxation by modifying myosin kinetics. Archives of Biochemistry and Biophysics, 2021, 707, 108909.	3.0	3
2	Fructose plus High-Salt Diet in Early Life Results in Salt-Sensitive Cardiovascular Changes in Mature Male Sprague Dawley Rats. Nutrients, 2021, 13, 3129.	4.1	10
3	Aortic Stiffness and Diastolic Dysfunction in Sprague Dawley Rats Consuming Short-Term Fructose Plus High Salt Diet . Integrated Blood Pressure Control, 2020, Volume 13, 111-124.	1.2	10
4	Muscle metaboreflex-induced increases in effective arterial elastance: effect of heart failure. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2020, 319, R1-R10.	1.8	12
5	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
6	Membrane stabilizer Poloxamer 188 improves yield of primary isolated rat cardiomyocytes without impairing function. Physiological Reports, 2020, 8, e14382.	1.7	4
7	Compliant Titin Isoform Content Is Reduced in Left Ventricles of Sedentary Versus Active Rats. Frontiers in Physiology, 2020, 11, 15.	2.8	2
8	Binge Alcohol Exposure in Adolescence Impairs Normal Heart Growth. Journal of the American Heart Association, 2020, 9, e015611.	3.7	9
9	Move quickly to detach: Strain rateâ€“dependent myosin detachment and cardiac relaxation. Journal of General Physiology, 2020, 152, .	1.9	2
10	Myocardial Fiber Mapping of Rat Hearts, Using Apparent Backscatter, with Histologic Validation. Ultrasound in Medicine and Biology, 2019, 45, 2075-2085.	1.5	7
11	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
12	How myofilament strain and strain rate lead the dance of the cardiac cycle. Archives of Biochemistry and Biophysics, 2019, 664, 62-67.	3.0	5
13	SMYD2 glutathionylation contributes to degradation of sarcomeric proteins. Nature Communications, 2018, 9, 4341.	12.8	27
14	Myocardial relaxation is accelerated by fast stretch, not reduced afterload. Journal of Molecular and Cellular Cardiology, 2017, 103, 65-73.	1.9	28
15	The link between exercise and titin passive stiffness. Experimental Physiology, 2017, 102, 1055-1066.	2.0	8
16	Heart Rate Is an Important Consideration for Cardiac Imaging of Diastolic Function. JACC: Cardiovascular Imaging, 2016, 9, 756-758.	5.3	9
17	Myocardial Strain Rate Modulates the Speed of Relaxation in Dynamically Loaded Twitch Contractions. Biophysical Journal, 2015, 108, 200a.	0.5	1
18	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

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19	Early detection of abnormal left ventricular relaxation in acute myocardial ischemia with a quadratic model. Med Eng Phys 2014;36(September (9)):1101â€“5 by Morimont et al.. Medical Engineering and Physics, 2015, 37, 826.	1.7	0
20	Storage using BDM or Blebbistatin Preserves Functional Measures of Unloaded Cardiomyocytes. Biophysical Journal, 2015, 108, 295a.	0.5	0
21	What global diastolic function is, what it is not, and how to measure it. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H1392-H1406.	3.2	25
22	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
23	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
24	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
25	Removal of immunoglobulin-like domains from titinâ€™s spring segment alters titin splicing in mouse skeletal muscle and causes myopathy. Journal of General Physiology, 2014, 143, 215-230.	1.9	45
26	Temperature and Transmural Region Influence Functional Measurements in Unloaded Left Ventricular Cardiomyocytes. Biophysical Journal, 2014, 106, 564a.	0.5	0
27	End Systolic Strain Rate, not Afterload, Controls Myocardial Relaxation. Biophysical Journal, 2014, 106, 646a.	0.5	1
28	Removal of Proximal IG Domains of Titin in Soleus Muscle Results in Differential Splicing of Titin MRNA. Biophysical Journal, 2013, 104, 310a.	0.5	0
29	Temperature and transmural region influence functional measurements in unloaded left ventricular cardiomyocytes. Physiological Reports, 2013, 1, e00158.	1.7	19
30	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
31	Passive Viscosity Decreases with Deletion of PEVK Region of Cardiac Titin. Biophysical Journal, 2013, 104, 310a-311a.	0.5	0
32	Shortening of Titin's Elastic Tandem Ig Segment Leads to Cardiac Hypertrophy and Diastolic Dysfunction. Biophysical Journal, 2013, 104, 158a.	0.5	0
33	Shortening of the Elastic Tandem Immunoglobulin Segment of Titin Leads to Diastolic Dysfunction. Circulation, 2013, 128, 19-28.	1.6	95
34	A New Mouse Model in which the Proximal Tandem Ig Element of Titin is Truncated (IGKO) - Assessment of Diastolic Function. Biophysical Journal, 2012, 102, 436a.	0.5	0
35	The Multifunctional Calcium/Calmodulin-Dependent Protein Kinase II Delta (CaMKIIÎ´) Phosphorylates Titin N2B and PEVK Spring Elements. Biophysical Journal, 2012, 102, 559a.	0.5	4
36	Removal of Ig Domains of Titin Alters Contractility in Mouse Soleus Muscle. Biophysical Journal, 2012, 102, 360a.	0.5	0

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37	Mouse and computational models link Mlc2v dephosphorylation to altered myosin kinetics in early cardiac disease. Journal of Clinical Investigation, 2012, 122, 1209-1221.	8.2	131
38	Quantification of Titin Based Viscosity: Temperature, Lattice Compression and Integrative Physiology. Biophysical Journal, 2011, 100, 455a.	0.5	0
39	Passive Properties of the Isolated Mouse Heart: Titin, Collagen and the Working Sarcomere Length Range. Biophysical Journal, 2011, 100, 344a.	0.5	0
40	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
41	Titin based viscosity in ventricular physiology: An integrative investigation of PEVKâ€"actin interactions. Journal of Molecular and Cellular Cardiology, 2011, 51, 428-434.	1.9	34
42	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
43	Titin-Actin Interaction: PEVK-Actin-Based Viscosity in a Large Animal. Journal of Biomedicine and Biotechnology, 2011, 2011, 1-8.	3.0	35
44	Point: Left ventricular volume during diastasis is the physiological in vivo equilibrium volume and is related to diastolic suction. Journal of Applied Physiology, 2010, 109, 606-608.	2.5	25
45	Last Word on Point:Counterpoint: Left ventricular volume during diastasis is the physiological in vivo equilibrium volume and is related to diastolic suction. Journal of Applied Physiology, 2010, 109, 615-615.	2.5	1
46	Titin-Isoform Dependence of Titin-Actin Interaction and Its Regulation by S100A1/<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msup><mml:mtext>Ca</mml:mtext><mml:mrow><mml:mtext>2+</mml:m Skinned Myocardium. Journal of Biomedicine and Biotechnology, 2010, 2010, 1-9.	3.0	23
47	Effect of Excision of Titin's PEVK Exons 219-225 on Skeletal Muscle Structure and Function. Biophysical Journal, 2010, 98, 544a-545a.	0.5	0
48	Physical determinants of left ventricular isovolumic pressure decline: model prediction with in vivo validation. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H1589-H1596.	3.2	32
49	Is left ventricular volume during diastasis the real equilibrium volume, and what is its relationship to diastolic suction?. Journal of Applied Physiology, 2008, 105, 1012-1014.	2.5	35
50	Last Word on Viewpoint: Is left ventricular volume during diastasis the real equilibrium volume, and what is its relationship to diastolic suction?. Journal of Applied Physiology, 2008, 105, 1019-1019.	2.5	4
51	The Kinematic Filling Efficiency Index of the Left Ventricle: Contrasting Normal vs. Diabetic Physiology. Ultrasound in Medicine and Biology, 2007, 33, 842-850.	1.5	11
52	Pressure Phase-plane Based Determination of the Onset of Left Ventricular Relaxation. Cardiovascular Engineering (Dordrecht, Netherlands), 2007, 7, 162-171.	1.0	7
53	Isovolumic pressure-to-early rapid filling decay rate relation: model-based derivation and validation via simultaneous catheterization echocardiography. Journal of Applied Physiology, 2006, 100, 528-534.	2.5	27
54	Derivation and Left Ventricular Pressure Phase Plane Based Validation of a Time Dependent Isometric Crossbridge Attachment Model. Cardiovascular Engineering (Dordrecht, Netherlands), 2006, 6, 132-144.	1.0	4

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55	Consequences of Increasing Heart Rate on Deceleration Time, the Velocityâ€“Time Integral, and E/A. American Journal of Cardiology, 2006, 97, 130-136.	1.6	38
56	Diastolic ventricular-vascular stiffness and relaxation relation: elucidation of coupling via pressure phase plane-derived indexes. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H2415-H2423.	3.2	20
57	Diabetes and diastolic function: Stiffness and relaxation from transmitral flow. Ultrasound in Medicine and Biology, 2005, 31, 1589-1596.	1.5	34
58	Duration of diastole and its phases as a function of heart rate during supine bicycle exercise. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H2003-H2008.	3.2	129
59	The peak atrioventricular pressure gradient to transmitral flow relation: Kinematic model prediction with in vivo validation. Journal of the American Society of Echocardiography, 2004, 17, 839-844.	2.8	34