Zhijie Wang

List of Publications by Year
in descending order

40	1,438	430442 18	433756 31
papers	citations	h-index	g-index

41	41	41	1752
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multiscale Contrasts Between the Right and Left Ventricle Biomechanics in Healthy Adult Sheep and Translational Implications. Frontiers in Bioengineering and Biotechnology, 2022, 10, 857638.	2.0	4
2	Role of cardiomyocytes in right ventricle viscoelasticity with pulmonary hypertension development. FASEB Journal, 2022, 36, .	0.2	0
3	Effect of Pulmonary Hypertension on Biaxial Viscoelastic Properties of the Right Ventricle at Rest and Exercise Conditions. FASEB Journal, 2022, 36, .	0.2	0
4	Pro-angiogenic Potential of Mesenchymal Stromal Cells Regulated by Matrix Stiffness and Anisotropy Mimicking Right Ventricles. Biomacromolecules, 2022, , .	2.6	2
5	Current status of myocardial restoration via the paracrine function of mesenchymal stromal cells. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 321, H112-H127.	1.5	4
6	Different Passive Viscoelastic Properties Between the Left and Right Ventricles in Healthy Adult Ovine. Journal of Biomechanical Engineering, 2021, 143, .	0.6	10
7	The Interventricular Septum Is Biomechanically Distinct from the Ventricular Free Walls. Bioengineering, 2021, 8, 216.	1.6	6
8	Current Understanding of the Biomechanics of Ventricular Tissues in Heart Failure. Bioengineering, 2020, 7, 2.	1.6	21
9	Mechanical Considerations of Electrospun Scaffolds for Myocardial Tissue and Regenerative Engineering. Bioengineering, 2020, 7, 122.	1.6	28
10	Establishment of adult right ventricle failure in ovine using a graded, animalâ€specific pulmonary artery constriction model. Animal Models and Experimental Medicine, 2020, 3, 182-192.	1.3	9
11	Correlations between the right ventricular passive elasticity and organ function in adult ovine. Journal of Integrative Cardiology, 2020, 6, .	0.1	6
12	Beneficial effects of mesenchymal stem cell delivery via a novel cardiac bioscaffold on right ventricles of pulmonary arterial hypertensive rats. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1005-H1013.	1.5	19
13	A Revised Pulmonary Artery Constriction Model of Right Ventricle Failure in Adult Ovine. FASEB Journal, 2019, 33, 532.14.	0.2	0
14	Biomechanical Properties and Mechanobiology of Cardiac ECM. Advances in Experimental Medicine and Biology, 2018, 1098, 1-19.	0.8	12
15	Organ-level right ventricular dysfunction with preserved Frank-Starling mechanism in a mouse model of pulmonary arterial hypertension. Journal of Applied Physiology, 2018, 124, 1244-1253.	1.2	21
16	Multiscale Computational Analysis of Right Ventricular Mechanoenergetics. Journal of Biomechanical Engineering, 2018, 140, .	0.6	8
17	A Constitutive Model of Ovine Left and Right Ventricles Biaxial Mechanical Properties. FASEB Journal, 2018, 32, .	0.2	0
18	Distinct Biaxial Mechanical Properties between Right and Left Ventricles in Healthy Adult Sheep. FASEB Journal, 2018, 32, 848.6.	0.2	0

#	Article	IF	Citations
19	Pulmonary vascular collagen content, not cross-linking, contributes to right ventricular pulsatile afterload and overload in early pulmonary hypertension. Journal of Applied Physiology, 2017, 122, 253-263.	1.2	13
20	Validation of an arterial constitutive model accounting for collagen content and crosslinking. Acta Biomaterialia, 2016, 31, 276-287.	4.1	22
21	Limiting collagen turnover via collagenase-resistance attenuates right ventricular dysfunction and fibrosis in pulmonary arterial hypertension. Physiological Reports, 2016, 4, e12815.	0.7	34
22	Mitochondria DNA mutations cause sex-dependent development of hypertension and alterations in cardiovascular function. Journal of Biomechanics, 2015, 48, 405-412.	0.9	30
23	Direct and indirect protection of right ventricular function by estrogen in an experimental model of pulmonary arterial hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H273-H283.	1.5	68
24	Effects of collagen deposition on passive and active mechanical properties of large pulmonary arteries in hypoxic pulmonary hypertension. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1115-1125.	1.4	45
25	Pulmonary vascular mechanics: important contributors to the increased right ventricular afterload of pulmonary hypertension. Experimental Physiology, 2013, 98, 1267-1273.	0.9	28
26	Right Ventricular Dysfunction in Pulmonary Arterial Hypertension: Cellular and Hemodynamic Changes in a Mouse Model. , 2013, , .		0
27	Blood Pressure, Artery Size, and Artery Compliance Parallel Bone Size and Strength in Mice With Differing Ece1 Expression. Journal of Biomechanical Engineering, 2013, 135, 61003-9.	0.6	5
28	Comparison of Approaches to Quantify Arterial Damping Capacity From Pressurization Tests on Mouse Conduit Arteries. Journal of Biomechanical Engineering, 2013, 135, 54504.	0.6	5
29	Progressive right ventricular functional and structural changes in a mouse model of pulmonary arterial hypertension. Physiological Reports, 2013, 1, e00184.	0.7	48
30	Analysis of cardiovascular dynamics in pulmonary hypertensive C57BL6/J mice. Frontiers in Physiology, 2013, 4, 355.	1.3	24
31	Changes in Large Pulmonary Arterial Viscoelasticity in Chronic Pulmonary Hypertension. PLoS ONE, 2013, 8, e78569.	1.1	52
32	Changes in Conduit Pulmonary Arterial Static and Dynamic Mechanical Properties During Severe Hypoxic Pulmonary Hypertension. , 2012, , .		2
33	Persistent vascular collagen accumulation alters hemodynamic recovery from chronic hypoxia. Journal of Biomechanics, 2012, 45, 799-804.	0.9	30
34	Role of collagen content and cross-linking in large pulmonary arterial stiffening after chronic hypoxia. Biomechanics and Modeling in Mechanobiology, 2012, 11, 279-289.	1.4	57
35	Pulmonary Vascular Wall Stiffness: An Important Contributor to the Increased Right Ventricular Afterload with Pulmonary Hypertension. Pulmonary Circulation, 2011, 1, 212-223.	0.8	172
36	The role of collagen in extralobar pulmonary artery stiffening in response to hypoxia-induced pulmonary hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H1823-H1831.	1.5	75

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37	Role of Collagen Content and Cross-Linking in Large Pulmonary Arterial Stiffening During Hypoxic Pulmonary Hypertension. , 2010, , .		0
38	Complex Hemodynamics at the Apex of an Arterial Bifurcation Induces Vascular Remodeling Resembling Cerebral Aneurysm Initiation. Stroke, 2007, 38, 1924-1931.	1.0	504
39	A MODEL SYSTEM FORMAPPING VASCULARRESPONSES TO COMPLEX HEMODYNAMICS AT ARTERIAL BIFURCATIONS IN VIVO. Neurosurgery, 2006, 59, 1094-1101.	0.6	72
40	Extracellular Matrix in Cardiac Tissue Mechanics and Physiology: Role of Collagen Accumulation. , 0, , .		2