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List of Publications by Year
in descending order

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70 papers	3,629 citations	201385 27 h-index	133063 59 g-index
71 all docs	71 docs citations	71 times ranked	4274 citing authors

#	Article	IF	Citations
1	Vascular Extracellular Matrix and Arterial Mechanics. Physiological Reviews, 2009, 89, 957-989.	13.1	782
2	Elastin in Large Artery Stiffness and Hypertension. Journal of Cardiovascular Translational Research, 2012, 5, 264-273.	1.1	344
3	New insights into elastic fiber assembly. Birth Defects Research Part C: Embryo Today Reviews, 2007, 81, 229-240.	3.6	338
4	Elastin, arterial mechanics, and cardiovascular disease. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H189-H205.	1.5	200
5	Mechanical Properties of Dilated Human Ascending Aorta. Annals of Biomedical Engineering, 2002, 30, 624-635.	1.3	173
6	Elastic fiber formation: A dynamic view of extracellular matrix assembly using timer reporters. Journal of Cellular Physiology, 2006, 207, 87-96.	2.0	170
7	Effects of elastin haploinsufficiency on the mechanical behavior of mouse arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H1209-H1217.	1.5	160
8	A Cell-Based Constitutive Relation for Bio-Artificial Tissues. Biophysical Journal, 2000, 79, 2369-2381.	0.2	96
9	Reduced Vessel Elasticity Alters Cardiovascular Structure and Function in Newborn Mice. Circulation Research, 2009, 104, 1217-1224.	2.0	94
10	Discrete Contributions of Elastic Fiber Components to Arterial Development and Mechanical Compliance. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 2083-2089.	1.1	76
11	Decreased aortic diameter and compliance precedes blood pressure increases in postnatal development of elastin-insufficient mice. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H221-H229.	1.5	70
12	The importance of elastin to aortic development in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H257-H264.	1.5	60
13	One-Dimensional Viscoelastic Behavior of Fibroblast Populated Collagen Matrices. Journal of Biomechanical Engineering, 2003, 125, 719-725.	0.6	58
14	Elastic fibers and biomechanics of the aorta: Insights from mouse studies. Matrix Biology, 2020, 85-86, 160-172.	1.5	57
15	Angiotensin-Converting Enzymeâ€“Induced Activation of Local Angiotensin Signaling Is Required for Ascending Aortic Aneurysms in Fibulin-4â€“Deficient Mice. Science Translational Medicine, 2013, 5, 183ra58, 1-11.	5.8	50
16	Characterization of t1 relaxation and blood-myocardial contrast enhancement of NC100150 injection in cardiac MRI. Journal of Magnetic Resonance Imaging, 1999, 10, 784-789.	1.9	44
17	Minoxidil improves vascular compliance, restores cerebral blood flow, and alters extracellular matrix gene expression in a model of chronic vascular stiffness. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H18-H32.	1.5	44
18	Role of Thrombospondin-1 in Mechanotransduction and Development of Thoracic Aortic Aneurysm in Mouse and Humans. Circulation Research, 2018, 123, 660-672.	2.0	44

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19	Abnormal mechanosensing and cofilin activation promote the progression of ascending aortic aneurysms in mice. Science Signaling, 2015, 8, ra105.	1.6	43
20	Heterogeneous Cellular Contributions to Elastic Laminae Formation in Arterial Wall Development. Circulation Research, 2019, 125, 1006-1018.	2.0	39
21	A Special Report on the NHLBI Initiative to Study Cellular and Molecular Mechanisms of Arterial Stiffness and Its Association With Hypertension. Circulation Research, 2017, 121, 1216-1218.	2.0	38
22	Crosslinked elastic fibers are necessary for low energy loss in the ascending aorta. Journal of Biomechanics, 2017, 61, 199-207.	0.9	36
23	A fiber-based constitutive model predicts changes in amount and organization of matrix proteins with development and disease in the mouse aorta. Biomechanics and Modeling in Mechanobiology, 2013, 12, 497-510.	1.4	34
24	Extracellular matrix and the mechanics of large artery development. Biomechanics and Modeling in Mechanobiology, 2012, 11, 1169-1186.	1.4	32
25	Cell Orientation Influences the Biaxial Mechanical Properties of Fibroblast Populated Collagen Vessels. Annals of Biomedical Engineering, 2004, 32, 720-731.	1.3	29
26	A constrained mixture model for developing mouse aorta. Biomechanics and Modeling in Mechanobiology, 2011, 10, 671-687.	1.4	29
27	Alternative Splicing and Tissue-specific Elastin Misassembly Act as Biological Modifiers of Human Elastin Gene Frameshift Mutations Associated with Dominant Cutis Laxa. Journal of Biological Chemistry, 2012, 287, 22055-22067.	1.6	28
28	Functionally Distinct Tendons From Elastin Haploinsufficient Mice Exhibit Mild Stiffening and Tendon-Specific Structural Alteration. Journal of Biomechanical Engineering, 2017, 139, .	0.6	28
29	Mechanical behavior and matrisome gene expression in the aneurysm-prone thoracic aorta of newborn lysyl oxidase knockout mice. American Journal of Physiology - Heart and Circulatory Physiology, 2017, 313, H446-H456.	1.5	27
30	Mechanical factors direct mouse aortic remodelling during early maturation. Journal of the Royal Society Interface, 2015, 12, 20141350.	1.5	24
31	Elastin-insufficient mice show normal cardiovascular remodeling in 2K1C hypertension despite higher baseline pressure and unique cardiovascular architecture. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H574-H582.	1.5	22
32	Mechanical Testing of Mouse Carotid Arteries: from Newborn to Adult. Journal of Visualized Experiments, 2012, , .	0.2	22
33	Elastic Fibers and Large Artery Mechanics in Animal Models of Development and Disease. Journal of Biomechanical Engineering, 2018, 140, .	0.6	22
34	Vascular Smooth Muscle Cell Subpopulations and Neointimal Formation in Mouse Models of Elastin Insufficiency. Arteriosclerosis, Thrombosis, and Vascular Biology, 2021, 41, 2890-2905.	1.1	22
35	Effect of Storage Duration on the Mechanical Behavior of Mouse Carotid Artery. Journal of Biomechanical Engineering, 2011, 133, 071007.	0.6	20
36	Measuring, reversing, and modeling the mechanical changes due to the absence of Fibulin-4 in mouse arteries. Biomechanics and Modeling in Mechanobiology, 2014, 13, 1081-1095.	1.4	17

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37	Hypertension and decreased aortic compliance due to reduced elastin amounts do not increase atherosclerotic plaque accumulation in Ldlrâˆ'/âˆ' mice. Atherosclerosis, 2016, 249, 22-29.	0.4	17
38	Measuring Left Ventricular Pressure in Late Embryonic and Neonatal Mice. Journal of Visualized Experiments, 2012, , .	0.2	16
39	Bio-chemo-mechanics of thoracic aortic aneurysms. Current Opinion in Biomedical Engineering, 2018, 5, 50-57.	1.8	16
40	Fibulin-5 null mice with decreased arterial compliance maintain normal systolic left ventricular function, but not diastolic function during maturation. Physiological Reports, 2014, 2, e00257.	0.7	15
41	Effects of Increased Arterial Stiffness on Atherosclerotic Plaque Amounts. Journal of Biomechanical Engineering, 2018, 140, .	0.6	15
42	Elastin haploinsufficiency in mice has divergent effects on arterial remodeling with aging depending on sex. American Journal of Physiology - Heart and Circulatory Physiology, 2020, 319, H1398-H1408.	1.5	15
43	Echocardiographic Characterization of Postnatal Development in Mice with Reduced Arterial Elasticity. Cardiovascular Engineering and Technology, 2012, 3, 424-438.	0.7	14
44	Differences in genetic signaling, and not mechanical properties of the wall, are linked to ascending aortic aneurysms in fibulin-4 knockout mice. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 309, H103-H113.	1.5	13
45	Comparative gene array analyses of severe elastic fiber defects in late embryonic and newborn mouse aorta. Physiological Genomics, 2018, 50, 988-1001.	1.0	13
46	Bio-Chemo-Mechanical Models of Vascular Mechanics. Annals of Biomedical Engineering, 2015, 43, 1477-1487.	1.3	12
47	Reduced embryonic blood flow impacts extracellular matrix deposition in the maturing aorta. Developmental Dynamics, 2018, 247, 914-923.	0.8	12
48	The Effects of Elastic Fiber Protein Insufficiency and Treatment on the Modulus of Arterial Smooth Muscle Cells. Journal of Biomechanical Engineering, 2014, 136, 021030.	0.6	11
49	Critical buckling pressure in mouse carotid arteries with altered elastic fibers. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 46, 69-82.	1.5	9
50	Elastic Fiber Fragmentation Increases Transmural Hydraulic Conductance and Solute Transport in Mouse Arteries. Journal of Biomechanical Engineering, 2019, 141, .	0.6	9
51	Murray's Law in Elastin Haploinsufficient (Eln+/âˆ') and Wild-Type (WT) Mice. Journal of Biomechanical Engineering, 2012, 134, 124504.	0.6	8
52	Elastin Insufficiency Predisposes Mice to Impaired Glucose Metabolism. Journal of Molecular and Genetic Medicine: an International Journal of Biomedical Research, 2014, 08, .	0.1	8
53	Elastin, arterial mechanics, and stenosis. American Journal of Physiology - Cell Physiology, 2022, 322, C875-C886.	2.1	8
54	Captopril treatment during development alleviates mechanically induced aortic remodeling in newborn elastin knockout mice. Biomechanics and Modeling in Mechanobiology, 2020, 19, 99-112.	1.4	7

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55	Dysregulated assembly of elastic fibers in fibulin-5 knockout mice results in a tendon-specific increase in elastic modulus. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 113, 104134.	1.5	7
56	Modeling Cell and Matrix Anisotropy in Fibroblast Populated Collagen Vessels. Biomechanics and Modeling in Mechanobiology, 2007, 6, 151-162.	1.4	6
57	A multiphasic model for determination of water and solute transport across the arterial wall: effects of elastic fiber defects. Archive of Applied Mechanics, 2022, 92, 447-459.	1.2	6
58	Passive biaxial mechanical behavior of newborn mouse aorta with and without elastin. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 126, 105021.	1.5	4
59	Reduced Amount or Integrity of Arterial Elastic Fibers Alters Allometric Scaling Relationships for Aortic Diameter and Heart Weight, But Not Cardiac Function in Maturing Mice. Journal of Biomechanical Engineering, 2019, 141, .	0.6	3
60	A Fragment of Cartilage Collagen, Chondrostatin, Inhibits Migration of Breast Cancer Cells. FASEB Journal, 2008, 22, 1029.11.	0.2	3
61	Experimental and Mouse-Specific Computational Models of the Fbln4SMKO Mouse to Identify Potential Biomarkers for Ascending Thoracic Aortic Aneurysm. Cardiovascular Engineering and Technology, 2022, 13, 558-572.	0.7	3
62	VASCULAR SMOOTH MUSCLE-SPECIFIC ELASTIN DELETION IS A NOVEL GENETIC MODEL FOR NEOINTIMAL HYPERPLASIA. Journal of the American College of Cardiology, 2019, 73, 2035.	1.2	2
63	Severing umbilical ties. ELife, 2020, 9, .	2.8	2
64	Postnatal Time Course of Arterial Mechanics in a Mouse Model of Pathological Remodeling due to Decreased Elastin Amounts. , 2013, , .		0
65	Does elastin deficiency cause chronic kidney disease?. Kidney International, 2017, 92, 1036-1038.	2.6	0
66	Timeâ€lapse imaging of extracellular matrix assembly. FASEB Journal, 2008, 22, 101.1.	0.2	0
67	Developmental Cardiovascular Remodeling Associated With Reduced Elastin Levels in Mice Occurs After Embryonic Day 18. , 2009, , .		0
68	The Effects of Extracellular Matrix Protein Insufficiency and Treatment on the Stiffness of Arterial Smooth Muscle Cells. , 2013, , .		0
69	Characterization of Cardiac Function and Arterial Mechanics During Early Postnatal Development in Fibulin-5 Null Mice. , 2013, , .		0
70	Major vascular ECM components, differential distribution supporting structure, and functions of the vasculome. , 2022, , 77-86.		0