Ghassan S Kassab

List of Publications by Year
in descending order

177 papers	5,383 citations	81900 39 h-index	110387 64 g-index
179 all docs	179 docs citations	179 times ranked	4722 citing authors

#	Article	IF	Citations
1	Imaging Coronary Artery Microstructure Using Second-Harmonic and Two-Photon Fluorescence Microscopy. Biophysical Journal, 2004, 87, 2778-2786.	0.5	275
2	Role of shear stress and stretch in vascular mechanobiology. Journal of the Royal Society Interface, 2011, 8, 1379-1385.	3.4	253
3	Scaling laws of vascular trees: of form and function. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H894-H903.	3.2	172
4	On the design of the coronary arterial tree: a generalization of Murray's law. Physics in Medicine and Biology, 1999, 44, 2929-2945.	3.0	170
5	Scaling of myocardial mass to flow and morphometry of coronary arteries. Journal of Applied Physiology, 2008, 104, 1281-1286.	2.5	135
6	Intraspecific scaling laws of vascular trees. Journal of the Royal Society Interface, 2012, 9, 190-200.	3.4	117
7	Why is the subendocardium more vulnerable to ischemia? A new paradigm. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H1090-H1100.	3.2	101
8	Effects of stent sizing on endothelial and vessel wall stress: potential mechanisms for in-stent restenosis. Journal of Applied Physiology, 2009, 106, 1686-1691.	2.5	92
9	Biomechanics of the cardiovascular system: the aorta as an illustratory example. Journal of the Royal Society Interface, 2006, 3, 719-740.	3.4	91
10	Flow patterns in three-dimensional porcine epicardial coronary arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H2959-H2970.	3.2	88
11	A Scaling Law of Vascular Volume. Biophysical Journal, 2009, 96, 347-353.	0.5	85
12	Biomechanical Modeling to Improve Coronary Artery Bifurcation Stenting. JACC: Cardiovascular Interventions, 2015, 8, 1281-1296.	2.9	84
13	Three-dimensional mechanical properties of porcine coronary arteries: a validated two-layer model. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1200-H1209.	3.2	83
14	Left ventricular regional wall curvedness and wall stress in patients with ischemic dilated cardiomyopathy. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 296, H573-H584.	3.2	79
15	Surrounding tissues affect the passive mechanics of the vessel wall: theory and experiment. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H3290-H3300.	3.2	77
16	A hybrid one-dimensional/Womersley model of pulsatile blood flow in the entire coronary arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2623-H2633.	3.2	76
17	The Flow Field along the Entire Length of Mouse Aorta and Primary Branches. Annals of Biomedical Engineering, 2008, 36, 685-699.	2.5	76
18	The Layered Structure of Coronary Adventitia under Mechanical Load. Biophysical Journal, 2011, 101, 2555-2562.	0.5	74

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19	Pulsatile blood flow in the entire coronary arterial tree: theory and experiment. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1074-H1087.	3.2	73
20	A validated predictive model of coronary fractional flow reserve. Journal of the Royal Society Interface, 2012, 9, 1325-1338.	3.4	73
21	Biaxial incremental homeostatic elastic moduli of coronary artery: two-layer model. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H1663-H1669.	3.2	72
22	BIOMECHANICAL CONSIDERATIONS IN THE DESIGN OF GRAFT: THE HOMEOSTASIS HYPOTHESIS. Annual Review of Biomedical Engineering, 2006, 8, 499-535.	12.3	71
23	Biaxial elastic material properties of porcine coronary media and adventitia. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H2581-H2587.	3.2	68
24	Distribution of stress and strain along the porcine aorta and coronary arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H2361-H2368.	3.2	66
25	Effects of vessel compliance on flow pattern in porcine epicardial right coronary arterial tree. Journal of Biomechanics, 2009, 42, 594-602.	2.1	65
26	Which diameter and angle rule provides optimal flow patterns in a coronary bifurcation?. Journal of Biomechanics, 2012, 45, 1273-1279.	2.1	63
27	Thrombogenic and Inflammatory Reactions to Biomaterials in Medical Devices. Frontiers in Bioengineering and Biotechnology, 2020, 8, 123.	4.1	63
28	Mechanisms of myocardium-coronary vessel interaction. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H861-H873.	3.2	62
29	Biaxial deformation of collagen and elastin fibers in coronary adventitia. Journal of Applied Physiology, 2013, 115, 1683-1693.	2.5	57
30	Construction and Validation of Subject-Specific Biventricular Finite-Element Models of Healthy and Failing Swine Hearts From High-Resolution DT-MRI. Frontiers in Physiology, 2018, 9, 539.	2.8	56
31	Optimal diameter of diseased bifurcation segment: a practical rule for percutaneous coronary intervention. EuroIntervention, 2012, 7, 1310-1316.	3.2	56
32	Microstructure-based biomechanics of coronary arteries in health and disease. Journal of Biomechanics, 2016, 49, 2548-2559.	2.1	54
33	Mis-sizing of stent promotes intimal hyperplasia: impact of endothelial shear and intramural stress. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 301, H2254-H2263.	3.2	52
34	Diameter asymmetry of porcine coronary arterial trees: structural and functional implications. American Journal of Physiology - Heart and Circulatory Physiology, 2008, 294, H714-H723.	3.2	48
35	A micromechanics finite-strain constitutive model of fibrous tissue. Journal of the Mechanics and Physics of Solids, 2011, 59, 1823-1837.	4.8	48
36	Experimentally Validated Microstructural 3D Constitutive Model of Coronary Arterial Media. Journal of Biomechanical Engineering, 2011, 133, 031007.	1.3	46

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37	Remodelling of the left anterior descending artery in a porcine model of supravalvular aortic stenosis. Journal of Hypertension, 2002, 20, 2429-2437.	0.5	44
38	A full 3-D reconstruction of the entire porcine coronary vasculature. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 299, H1064-H1076.	3.2	44
39	The Scaling of Blood Flow Resistance: From a Single Vessel to the Entire Distal Tree. Biophysical Journal, 2009, 96, 339-346.	0.5	42
40	Biophysical Model of the Spatial Heterogeneity of Myocardial Flow. Biophysical Journal, 2009, 96, 4035-4043.	0.5	42
41	Capillary Perfusion and Wall Shear Stress Are Restored in the Coronary Circulation of Hypertrophic Right Ventricle. Circulation Research, 2007, 100, 273-283.	4.5	41
42	Validation of Image-Based Method for Extraction of Coronary Morphometry. Annals of Biomedical Engineering, 2008, 36, 356-368.	2.5	39
43	Relationship between esophageal muscle thickness and intraluminal pressure: an ultrasonographic study. American Journal of Physiology - Renal Physiology, 2001, 280, G1093-G1098.	3.4	38
44	Biaxial vasoactivity of porcine coronary artery. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H2058-H2063.	3.2	38
45	Microstructural constitutive model of active coronary media. Biomaterials, 2013, 34, 7575-7583.	11.4	38
46	A hemodynamic analysis of coronary capillary blood flow based on anatomic and distensibility data. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H2158-H2166.	3.2	37
47	The Coronary Vasculature and its Reconstruction. Annals of Biomedical Engineering, 2000, 28, 903-915.	2.5	37
48	Estrogen modulates the mechanical homeostasis of mouse arterial vessels through nitric oxide. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H1788-H1797.	3.2	37
49	Prediction of Left Ventricular Mechanics Using Machine Learning. Frontiers in Physics, 2019, 7, .	2.1	37
50	Constitutive Modeling of Coronary Arterial Mediaâ€"Comparison of Three Model Classes. Journal of Biomechanical Engineering, 2011, 133, 061008.	1.3	36
51	Analysis of patient-specific surgical ventricular restoration: importance of an ellipsoidal left ventricular geometry for diastolic and systolic function. Journal of Applied Physiology, 2013, 115, 136-144.	2.5	36
52	Non-linear micromechanics of soft tissues. International Journal of Non-Linear Mechanics, 2013, 56, 79-85.	2.6	35
53	In vivo validation of the design rules of the coronary arteries and their application in the assessment of diffuse disease. Physics in Medicine and Biology, 2002, 47, 977-93.	3.0	35
54	Effect of Surrounding Tissue on Vessel Fluid and Solid Mechanics. Journal of Biomechanical Engineering, 2004, 126, 760-769.	1.3	33

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55	Analysis of blood flow in an out-of-plane CABG model. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H283-H295.	3.2	33
56	Bifurcation asymmetry of the porcine coronary vasculature and its implications on coronary flow heterogeneity. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H2493-H2500.	3.2	32
57	Functional hierarchy of coronary circulation: direct evidence of a structure-function relation. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H2559-H2565.	3.2	29
58	Rosiglitazone reverses endothelial dysfunction but not remodeling of femoral artery in Zucker diabetic fatty rats. Cardiovascular Diabetology, 2010, 9, 19.	6.8	29
59	Assessment of endothelial function of large, medium, and small vessels: a unified myograph. American Journal of Physiology - Heart and Circulatory Physiology, 2011, 300, H94-H100.	3.2	29
60	Scaling laws of coronary circulation in health and disease. Journal of Biomechanics, 2016, 49, 2531-2539.	2.1	29
61	Hemodynamics of left internal mammary artery bypass graft: Effect of anastomotic geometry, coronary artery stenosis, and postoperative time. Journal of Biomechanics, 2016, 49, 645-652.	2.1	29
62	Bench testing and coronary artery bifurcations: a consensus document from the European Bifurcation Club. EuroIntervention, 2018, 13, e1794-e1803.	3.2	28
63	Anatomy and function relation in the coronary tree: from bifurcations to myocardial flow and mass. EuroIntervention, 2015, 11, V13-V17.	3.2	28
64	A novel system for the reconstruction of a coronary artery lumen profile in real time: a preclinical validation. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H485-H492.	3.2	27
65	Efficacy of intramyocardial injection of Algisyl-LVR for the treatment of ischemic heart failure in swine. International Journal of Cardiology, 2018, 255, 129-135.	1.7	27
66	Structure-function relation in the coronary artery tree: from fluid dynamics to arterial bifurcations. EuroIntervention, 2010, 6, J10-J15.	3.2	27
67	Coronary venous retroperfusion: an old concept, a new approach. Journal of Applied Physiology, 2008, 104, 1266-1272.	2.5	26
68	Constitutive modeling of the passive inflation-extension behavior of the swine colon. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 77, 176-186.	3.1	25
69	Definitions and Standardized Endpoints for Treatment of Coronary Bifurcations. Journal of the American College of Cardiology, 2022, 80, 63-88.	2.8	25
70	Wall thickness of coronary vessels varies transmurally in the LV but not the RV: implications for local stress distribution. American Journal of Physiology - Heart and Circulatory Physiology, 2009, 297, H750-H758.	3.2	24
71	Two-layer model of coronary artery vasoactivity. Journal of Applied Physiology, 2013, 114, 1451-1459.	2.5	24
72	Right coronary artery becomes stiffer with increase in elastin and collagen in right ventricular hypertrophy. Journal of Applied Physiology, 2009, 106, 1338-1346.	2.5	23

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73	Role of Pulse Pressure and Geometry of Primary Entry Tear in Acute Type B Dissection Propagation. Annals of Biomedical Engineering, 2017, 45, 592-603.	2.5	23
74	Image-based assessment of fractional flow reserve. EuroIntervention, 2015, 11, V50-V54.	3.2	23
75	Measurement of Coronary Lumen Area Using an Impedance Catheter: Finite Element Model and in Vitro Validation. Annals of Biomedical Engineering, 2004, 32, 1642-1653.	2.5	22
76	Numerical investigation of blood flow in three-dimensional porcine left anterior descending artery with various stenoses. Computers in Biology and Medicine, 2014, 47, 130-138.	7.0	22
77	Intra-myocardial alginate hydrogel injection acts as a left ventricular mid-wall constraint in swine. Acta Biomaterialia, 2020, 111, 170-180.	8.3	22
78	Hemodynamics in Coronary Arterial Tree of Serial Stenoses. PLoS ONE, 2016, 11, e0163715.	2.5	21
79	Nonuniformity of axial and circumferential remodeling of large coronary veins in response to ligation. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H1558-H1565.	3.2	20
80	Vasoactivity of Blood Vessels Using a Novel Isovolumic Myograph. Annals of Biomedical Engineering, 2007, 35, 356-366.	2.5	20
81	CT-based Diagnosis of Diffuse Coronary Artery Disease on the Basis of Scaling Power Laws. Radiology, 2013, 268, 694-701.	7.3	20
82	Growth, ageing and scaling laws of coronary arterial trees. Journal of the Royal Society Interface, 2015, 12, 20150830.	3.4	20
83	Mild Anastomotic Stenosis in Patient-Specific CABG Model May Enhance Graft Patency: A New Hypothesis. PLoS ONE, 2013, 8, e73769.	2.5	20
84	Compensatory remodeling of coronary microvasculature maintains shear stress in porcine left-ventricular hypertrophy. Journal of Hypertension, 2012, 30, 608-616.	0.5	19
85	Numerical Simulation and Clinical Implications of Stenosis in Coronary Blood Flow. BioMed Research International, 2014, 2014, 1-10.	1.9	19
86	Longitudinal position matrix of the pig coronary vasculature and its hemodynamic implications. American Journal of Physiology - Heart and Circulatory Physiology, 1997, 273, H2832-H2842.	3.2	18
87	Role of Re-entry Tears on the Dynamics of Type B Dissection Flap. Annals of Biomedical Engineering, 2018, 46, 186-196.	2.5	18
88	Mechanisms of Weight Loss After Sleeve Gastrectomy and Adjustable Gastric Banding: Far More Than Just Restriction. Obesity, 2019, 27, 1776-1783.	3.0	18
89	Local fluid dynamics in patients with bifurcated coronary lesions undergoing percutaneous coronary interventions. Cardiology Journal, 2021, 28, 321-329.	1.2	18
90	Relation of angiographic side branch calibre to myocardial mass: a proof of concept myocardial infarct index. EuroIntervention, 2013, 8, 1461-1463.	3.2	18

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91	Impact of main branch stenting on endothelial shear stress: role of side branch diameter, angle and lesion. Journal of the Royal Society Interface, 2012, 9, 1187-1193.	3.4	17
92	Increased aortic stiffness elevates pulse and mean pressure and compromises endothelial function in Wistar rats. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 307, H880-H887.	3.2	17
93	K_V7 channels contribute to paracrine, but not metabolic or ischemic, regulation of coronary vascular reactivity in swine. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H693-H704.	3.2	17
94	Remodeling of the Bifurcation Asymmetry of Right Coronary Ventricular Branches in Hypertrophy. Annals of Biomedical Engineering, 2000, 28, 424-430.	2.5	16
95	Myocardial protection in the failing heart: II. Effect of pulsatile cardioplegic perfusion under simulated left ventricular restoration. Journal of Thoracic and Cardiovascular Surgery, 2006, 132, 884-890.	0.8	16
96	A validated 3D microstructure-based constitutive model of coronary artery adventitia. Journal of Applied Physiology, 2016, 121, 333-342.	2.5	16
97	Numerical Simulations of MitraClip Placement: Clinical Implications. Scientific Reports, 2019, 9, 15823.	3.3	16
98	Relation between zero-stress state and branching order of porcine left coronary arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 275, H2283-H2290.	3.2	15
99	Proper Orientation of the Graft Artery Is Important to Ensure Physiological Flow Direction. Annals of Biomedical Engineering, 2006, 34, 953-957.	2.5	15
100	Myocardial protection in the failing heart: I. Effect of cardioplegia and the beating state under simulated left ventricular restoration. Journal of Thoracic and Cardiovascular Surgery, 2006, 132, 875-883.	0.8	14
101	Integrins mediate mechanical compressionâ€“induced endothelium-dependent vasodilation through endothelial nitric oxide pathway. Journal of General Physiology, 2015, 146, 221-232.	1.9	14
102	Left Ventricular Wall Stress Is Sensitive Marker of Hypertrophic Cardiomyopathy With Preserved Ejection Fraction. Frontiers in Physiology, 2018, 9, 250.	2.8	14
103	Method for Calibration of Left Ventricle Material Properties Using Three-Dimensional Echocardiography Endocardial Strains. Journal of Biomechanical Engineering, 2019, 141, .	1.3	14
104	Tricuspid valve regurgitation decreases after mitraclip implantation: Fluid structure interaction simulation. Mechanics Research Communications, 2019, 97, 96-100.	1.8	14
105	Constructal Law of Vascular Trees for Facilitation of Flow. PLoS ONE, 2014, 9, e116260.	2.5	13
106	IVUS Validation of Patient Coronary Artery Lumen Area Obtained from CT Images. PLoS ONE, 2014, 9, e86949.	2.5	13
107	Impact of stent mis-sizing and mis-positioning on coronary fluid wall shear and intramural stress. Journal of Applied Physiology, 2013, 115, 285-292.	2.5	12
108	Biomechanical comparison between mono-, bi-, and tricuspid valve architectures. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2014, 2, 188-193.e1.	1.6	12

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109	A novel strategy for increasing wall thickness of coronary venules prior to retroperfusion. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H972-H978.	3.2	11
110	Stroke Propensity Is Increased under Atrial Fibrillation Hemodynamics: A Simulation Study. PLoS ONE, 2013, 8, e73485.	2.5	11
111	Passive and Active Triaxial Wall Mechanics in a Two-Layer Model of Porcine Coronary Artery. Scientific Reports, 2017, 7, 13911.	3.3	11
112	Fluidâ€"Structure Interaction (FSI) Modeling in the Cardiovascular System. , 2010, , 141-157.		11
113	In vivo self-assembly of small diameter pulmonary visceral pleura artery graft. Acta Biomaterialia, 2019, 83, 265-276.	8.3	10
114	Study of Coronary Atherosclerosis Using Blood Residence Time. Frontiers in Physiology, 2021, 12, 625420.	2.8	10
115	Hemodynamic coupling of a pair of venous valves. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2014, 2, 303-314.	1.6	9
116	Growth and remodeling of canine common iliac vein in response to venous reflux and hypertension. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2015, 3, 303-311.e1.	1.6	9
117	Hemodynamics of venous valve pairing and implications on helical flow. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2018, 6, 517-522.e1.	1.6	9
118	Cerebrovascular miRNAs correlate with the clearance of AÎ² through perivascular route in younger 3xTgâ€AD mice. Brain Pathology, 2020, 30, 92-105.	4.1	9
119	Application of feed forward and recurrent neural networks in simulation of left ventricular mechanics. Scientific Reports, 2020, 10, 22298.	3.3	9
120	Impact of bifurcation dual stenting on endothelial shear stress. Journal of Applied Physiology, 2015, 119, 627-632.	2.5	8
121	Compensatory enlargement of Ossabaw miniature swine coronary arteries in diffuse atherosclerosis. IJC Heart and Vasculature, 2015, 6, 4-11.	1.1	8
122	Remodeling of left circumflex coronary arterial tree in pacing-induced heart failure. Journal of Applied Physiology, 2015, 119, 404-411.	2.5	8
123	Jejunumâ€"ileum circuit procedure improves glucose metabolism in diabetic rats independent of weight loss. Obesity, 2016, 24, 342-351.	3.0	8
124	Mechanical Homeostasis of Cardiovascular Tissue. , 2008, , 371-391.		8
125	3D Reconstruction of Coronary Artery Vascular Smooth Muscle Cells. PLoS ONE, 2016, 11, e0147272.	2.5	8
126	Age and gender â€" Specific changes in left ventricular systolic function in human volunteers. International Journal of Cardiology, 2014, 172, e102-e105.	1.7	7

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127	Animal Models of Diverticulosis: Review and Recommendations. Digestive Diseases and Sciences, 2018, 63, 1409-1418.	2.3	7
128	Acute Tachycardia Increases Aortic Distensibility, but Reduces Total Arterial Compliance Up to a Moderate Heart Rate. Frontiers in Physiology, 2018, 9, 1634.	2.8	7
129	Search for an Optimal Design of a Bioprosthetic Venous Valve: In silico and inÂvitro Studies. European Journal of Vascular and Endovascular Surgery, 2019, 58, 112-119.	1.5	7
130	Homologous and heterologous assessment of a novel biomaterial for venous patch. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2020, 8, 458-469.e1.	1.6	7
131	Computational analysis of mechanical stress in colonic diverticulosis. Scientific Reports, 2020, 10, 6014.	3.3	7
132	Computational Modeling of Coronary Stents. , 2010, , 207-220.		7
133	Mitral Valve Atlas for Artificial Intelligence Predictions of MitraClip Intervention Outcomes. Frontiers in Cardiovascular Medicine, 2021, 8, 759675.	2.4	7
134	A Systems Approach to Tissue Remodeling. Journal of Biomechanical Engineering, 2009, 131, 101008.	1.3	6
135	Role of vessel-to-prosthesis size mismatch in venous valve performance. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2017, 5, 105-113.e1.	1.6	6
136	Computational Simulations of Provisional Stenting of a Diseased Coronary Artery Bifurcation Model. Scientific Reports, 2020, 10, 9667.	3.3	6
137	Computed tomography-based diagnosis of diffuse compensatory enlargement of coronary arteries using scaling power laws. Journal of the Royal Society Interface, 2013, 10, 20121015.	3.4	5
138	Conductance sizing balloon for measurement of peripheral artery minimal stent area. Journal of Vascular Surgery, 2014, 60, 759-766.	1.1	5
139	Intraspecific scaling laws are preserved in ventricular hypertrophy but not in heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H1108-H1117.	3.2	5
140	Chronic ETA antagonist reverses hypertension and impairment of structure and function of peripheral small arteries in aortic stiffening. Scientific Reports, 2018, 8, 3076.	3.3	5
141	Chemical imaging of fresh vascular smooth muscle cell response by epiâ€detected stimulated Raman scattering. Journal of Biophotonics, 2018, 11, e201700005.	2.3	5
142	Novel swine model of colonic diverticulosis. American Journal of Physiology - Renal Physiology, 2019, 317, G51-G56.	3.4	5
143	Efficacy and Mechanisms of Gastric Volume-Restriction Bariatric Devices. Frontiers in Physiology, 2021, 12, 761481.	2.8	5
144	A Simulation Study of the Effects of Number and Location of MitraClips on Mitral Regurgitation. , 2022, 1, 100015.		5

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145	Inversion of Left Atrial Appendage Will Cause Compressive Stresses in the Tissue: Simulation Study of Potential Therapy. Journal of Personalized Medicine, 2022, 12, 883.	2.5	5
146	Role of Aortic Geometry on Stroke Propensity based on Simulations of Patient-Specific Models. Scientific Reports, 2017, 7, 7065.	3.3	4
147	Validated Computational Model to Compute Re-apposition Pressures for Treating Type-B Aortic Dissections. Frontiers in Physiology, 2018, 9, 513.	2.8	4
148	Increased Serum Klotho With Age-Related Aortic Stiffness and Peripheral Vascular Resistance in Young and Middle-Aged Swine. Frontiers in Physiology, 2020, 11, 591.	2.8	4
149	Iliac Veins Are More Compressible Than Iliac Arteries: A New Method of Testing. Journal of Biomechanical Engineering, 2019, 141, .	1.3	4
150	ANALYSIS OF CORONARY CIRCULATION: A BIOENGINEERING APPROACH. Advanced Series in Biomechanics, 2001, , 93-119.	0.1	4
151	Optimization of Peripheral Vascular Sizing with Conductance Guidewire: Theory and Experiment. PLoS ONE, 2017, 12, e0168886.	2.5	4
152	Intramyocardial Injections to De-Stiffen the Heart: A Subject-Specific in Silico Approach. MCB Molecular and Cellular Biomechanics, 2019, 16, 185-197.	0.7	4
153	Real time reduced order model for angiography fractional flow reserve. Computer Methods and Programs in Biomedicine, 2022, 216, 106674.	4.7	4
154	Pulmonary Visceral Pleura Biomaterial: Elastin- and Collagen-Based Extracellular Matrix. Frontiers in Bioengineering and Biotechnology, 2022, 10, 796076.	4.1	4
155	Biomechanical constitutive modeling of the gastrointestinal tissues: A systematic review. Materials and Design, 2022, 217, 110576.	7.0	4
156	Accurate nonfluoroscopic guidance and tip location of peripherally inserted central catheters using a conductance guidewire system. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2013, 1, 202-208.e1.	1.6	3
157	Response of Various Conduit Arteries in Tachycardia- and Volume Overload-Induced Heart Failure. PLoS ONE, 2014, 9, e101645.	2.5	3
158	Longitudinal Hemodynamic Measurements in Swine Heart Failure Using a Fully Implantable Telemetry System. PLoS ONE, 2014, 9, e103331.	2.5	3
159	Twoâ€inâ€one aortic valve sizing and valvuloplasty conductance balloon catheter. Catheterization and Cardiovascular Interventions, 2015, 86, 136-143.	1.7	3
160	Thrombus deflector stent for stroke prevention: A simulation study. Journal of Biomechanics, 2015, 48, 1789-1795.	2.1	3
161	Biomechanical Material Characterization of Stanford Type-B Dissected Porcine Aortas. Frontiers in Physiology, 2018, 9, 1317.	2.8	3
162	Intra- and inter-specific scaling laws of plants and animals. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 321-330.	3.4	3

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163	Resliced image space construction for coronary artery collagen fibers. PLoS ONE, 2017, 12, e0184972.	2.5	3
164	Prosthetic venous valve patient selection by validated physics-based computational models. Journal of Vascular Surgery: Venous and Lymphatic Disorders, 2015, 3, 75-80.	1.6	2
165	Biomechanical impact of provisional stenting and balloon dilatation on coronary bifurcation: clinical implications. Journal of Applied Physiology, 2017, 123, 221-226.	2.5	2
166	Flow velocity is relatively uniform in the coronary sinusal venous tree: structure-function relation. Journal of Applied Physiology, 2017, 122, 60-67.	2.5	2
167	Novel Biomaterial for Artery Patch in Swine Model With High-Fat Diet. Frontiers in Bioengineering and Biotechnology, 2021, 9, 679466.	4.1	2
168	Selective autoretroperfusion preserves myocardial function during coronary artery ligation in swine. Acute Cardiac Care, 2011, 13, 99-108.	0.2	1
169	Selective Autoretroperfusion Provides Substantial Cardioprotection in Swine. JACC Basic To Translational Science, 2020, 5, 267-278.	4.1	1
170	Y.C. "Bert" Fung: the father of modern biomechanics. Mcb Mechanics and Chemistry of Biosystems, 2004, 1, 5-22.	0.3	1
171	Aortic Leaflet Stresses Are Substantially Lower Using Pulmonary Visceral Pleura Than Pericardial Tissue. Frontiers in Bioengineering and Biotechnology, 2022, 10, 869095.	4.1	1
172	Reply to Letter to Editor by S Tong, L Zhang, J Joseph, and X Jiang â€œA potential and novel therapeutic approach to ischemic heart failure: Algisyl-LVRâ€• International Journal of Cardiology, 2019, 279, 133.	1.7	0
173	Constitutive Models of Coronary Vasculature. , 2019, , 173-308.		0
174	Local Coronary Flow and Stress Distribution. , 2019, , 521-564.		0
175	Mechanical Properties and Microstructure of the Coronary Vasculature. , 2019, , 105-171.		0
176	Y. C. â€œBERTâ€•FUNG: A MASTER. , 2009, , 335-336.		0
177	Reply to Octavia, Wingler, Schmidt, and Moens. Journal of Applied Physiology, 2011, 111, 330-330.	2.5	0