Patrick Segers

List of Publications by Year
in descending order

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483 papers	18,775 citations	14655 66 h-index	18130 120 g-index
507 all docs	507 docs citations	507 times ranked	16924 citing authors

#	Article	IF	Citations
1	Determinants of pulse wave velocity in healthy people and in the presence of cardiovascular risk factors: â€˜establishing normal and reference valuesâ€™. European Heart Journal, 2010, 31, 2338-2350.	2.2	1,637
2	Expert consensus document on the measurement of aortic stiffness in daily practice using carotid-femoral pulse wave velocity. Journal of Hypertension, 2012, 30, 445-448.	0.5	1,440
3	Large-Artery Stiffness in Health andÂDisease. Journal of the American College of Cardiology, 2019, 74, 1237-1263.	2.8	512
4	Vascular Smooth Muscle Cells and Arterial Stiffening: Relevance in Development, Aging, and Disease. Physiological Reviews, 2017, 97, 1555-1617.	28.8	466
5	Role of Pulse Pressure Amplification in Arterial Hypertension. Hypertension, 2009, 54, 375-383.	2.7	457
6	Arterial Wave Reflections and Incident Cardiovascular Events and Heart Failure. Journal of the American College of Cardiology, 2012, 60, 2170-2177.	2.8	373
7	Telomere length and cardiovascular risk factors in a middleâ€aged population free of overt cardiovascular disease. Aging Cell, 2007, 6, 639-647.	6.7	309
8	Recommendations on the Use of Echocardiography in Adult Hypertension: A Report from the European Association of Cardiovascular Imaging (EACVI) and the American Society of Echocardiography (ASE)â€. Journal of the American Society of Echocardiography, 2015, 28, 727-754.	2.8	298
9	Pulse wave propagation in a model human arterial network: Assessment of 1-D visco-elastic simulations against in vitro measurements. Journal of Biomechanics, 2011, 44, 2250-2258.	2.1	277
10	Noninvasive (Input) Impedance, Pulse Wave Velocity, and Wave Reflection in Healthy Middle-Aged Men and Women. Hypertension, 2007, 49, 1248-1255.	2.7	270
11	Reference intervals for common carotid intima-media thickness measured with echotracking: relation with risk factors. European Heart Journal, 2013, 34, 2368-2380.	2.2	228
12	Pulse wave propagation in a model human arterial network: Assessment of 1-D numerical simulations against in vitro measurements. Journal of Biomechanics, 2007, 40, 3476-3486.	2.1	223
13	Left Ventricular Mass. Hypertension, 2010, 56, 91-98.	2.7	218
14	Recommendations on the use of echocardiography in adult hypertension: a report from the European Association of Cardiovascular Imaging (EACVI) and the American Society of Echocardiography (ASE)^{<xref ref-type="fn" rid="AN1">â€</xref>}. European Heart Journal Cardiovascular Imaging, 2015, 16, 577-605.	1.2	190
15	Amplification of the Pressure Pulse in the Upper Limb in Healthy, Middle-Aged Men and Women. Hypertension, 2009, 54, 414-420.	2.7	177
16	Validation of non-invasive central blood pressure devices: ARTERY Society task force consensus statement on protocol standardization. European Heart Journal, 2017, 38, 2805-2812.	2.2	175
17	Noninvasive Evaluation of Left Ventricular Afterload. Hypertension, 2010, 56, 563-570.	2.7	169
18	Noninvasive Assessment of Local Pulse Pressure. Hypertension, 2005, 46, 244-248.	2.7	163

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19	ARTERY Society guidelines for validation of non-invasive haemodynamic measurement devices: Part 1, arterial pulse wave velocity. Artery Research, 2010, 4, 34.	0.6	149
20	Rationale, design, methods and baseline characteristics of the Asklepios Study. European Journal of Cardiovascular Prevention and Rehabilitation, 2007, 14, 179-191.	2.8	146
21	A Novel Simulation Strategy for Stent Insertion and Deployment in Curved Coronary Bifurcations: Comparison of Three Drug-Eluting Stents. Annals of Biomedical Engineering, 2010, 38, 88-99.	2.5	140
22	Use of pulse pressure method for estimating total arterial compliance in vivo. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H424-H428.	3.2	133
23	Levosimendan improves right ventriculovascular coupling in a porcine model of right ventricular dysfunction*. Critical Care Medicine, 2007, 35, 707-715.	0.9	131
24	Relation of effective arterial elastance to arterial system properties. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 282, H1041-H1046.	3.2	126
25	On the Use of In Vivo Measured Flow Rates as Boundary Conditions for Image-Based Hemodynamic Models of the Human Aorta: Implications for Indicators of Abnormal Flow. Annals of Biomedical Engineering, 2012, 40, 729-741.	2.5	126
26	How to Measure Arterial Stiffness in Humans. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, 1034-1043.	2.4	125
27	Age and gender related patterns in carotid-femoral PWV and carotid and femoral stiffness in a large healthy, middle-aged population. Journal of Hypertension, 2008, 26, 1411-1419.	0.5	123
28	Noninvasive Evaluation of Left Ventricular Afterload. Hypertension, 2010, 56, 555-562.	2.7	120
29	Simultaneous quantification of flow and tissue velocities based on multi-angle plane wave imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 727-738.	3.0	115
30	Variability of Computational Fluid Dynamics Solutions for Pressure and Flow in a Giant Aneurysm: The ASME 2012 Summer Bioengineering Conference CFD Challenge. Journal of Biomechanical Engineering, 2013, 135, 021016.	1.3	109
31	Effects of vasopressin on right ventricular function in an experimental model of acute pulmonary hypertension*. Critical Care Medicine, 2002, 30, 2548-2552.	0.9	108
32	Primary impairment of left ventricular function in Marfan syndrome. International Journal of Cardiology, 2006, 112, 353-358.	1.7	108
33	Evaluation of Noninvasive Methods to Assess Wave Reflection and Pulse Transit Time From the Pressure Waveform Alone. Hypertension, 2009, 53, 142-149.	2.7	108
34	A computational method to assess the in vivo stresses and unloaded configuration of patient-specific blood vessels. Journal of Computational and Applied Mathematics, 2013, 246, 10-17.	2.0	107
35	Assessment of pressure wave reflection: getting the timing right!. Physiological Measurement, 2007, 28, 1045-1056.	2.1	106
36	Early and Late Systolic Wall Stress Differentially Relate to Myocardial Contraction and Relaxation in Middle-Aged Adults. Hypertension, 2013, 61, 296-303.	2.7	106

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37	Carotid to femoral pulse wave velocity. Journal of Hypertension, 2011, 29, 1577-1582.	0.5	103
38	Effects of levosimendan on right ventricular function and ventriculovascular coupling in open chest pigs*. Critical Care Medicine, 2003, 31, 2339-2343.	0.9	98
39	Time-Varying Myocardial Stress and Systolic Pressure-Stress Relationship. Circulation, 2009, 119, 2798-2807.	1.6	96
40	Reference values for local arterial stiffness. Part A. Journal of Hypertension, 2015, 33, 1981-1996.	0.5	96
41	Ethnic Differences in Arterial Wave Reflections and Normative Equations for Augmentation Index. Hypertension, 2011, 57, 1108-1116.	2.7	95
42	Common Genetic Variation in the 3â€²- BCL11B Gene Desert Is Associated With Carotid-Femoral Pulse Wave Velocity and Excess Cardiovascular Disease Risk. Circulation: Cardiovascular Genetics, 2012, 5, 81-90.	5.1	90
43	Arterial Properties as Determinants of Time-Varying Myocardial Stress in Humans. Hypertension, 2012, 60, 64-70.	2.7	88
44	Quantification of the Contribution of Cardiac and Arterial Remodeling to Hypertension. Hypertension, 2000, 36, 760-765.	2.7	87
45	Arterial Load and Ventricular-Arterial Coupling. Hypertension, 2009, 54, 558-566.	2.7	85
46	Peripheral â€œOscillatoryâ€•Compliance Is Associated With Aortic Augmentation Index. Hypertension, 2001, 37, 1434-1439.	2.7	82
47	Impact of competitive flow on wall shear stress in coronary surgery: computational fluid dynamics of a LIMAâ€“LAD model. Cardiovascular Research, 2010, 88, 512-519.	3.8	82
48	Numerical Validation of a New Method to Assess Aortic Pulse Wave Velocity from a Single Recording of a Brachial Artery Waveform with an Occluding Cuff. Annals of Biomedical Engineering, 2010, 38, 876-888.	2.5	81
49	Limitations and pitfalls of non-invasive measurement of arterial pressure wave reflections and pulse wave velocity. Artery Research, 2009, 3, 79.	0.6	79
50	Reflection Magnitude as a Predictor of Mortality. Hypertension, 2014, 64, 958-964.	2.7	79
51	Design of a New Pulsatile Bioreactor for Tissue Engineered Aortic Heart Valve Formation. Artificial Organs, 2002, 26, 710-714.	1.9	78
52	Carotid Tonometry Versus Synthesized Aorta Pressure Waves for the Estimation of Central Systolic Blood Pressure and Augmentation Index. American Journal of Hypertension, 2005, 18, 1168-1173.	2.0	78
53	Angiotensin II infusion into ApoE-/- mice: a model for aortic dissection rather than abdominal aortic aneurysm?. Cardiovascular Research, 2017, 113, 1230-1242.	3.8	78
54	Analyzing the human liver vascular architecture by combining vascular corrosion casting and microâ€<scp>CT</scp> scanning: a feasibility study. Journal of Anatomy, 2014, 224, 509-517.	1.5	77

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55	Perfusion Characteristics of the Human Hepatic Microcirculation Based on Three-Dimensional Reconstructions and Computational Fluid Dynamic Analysis. Journal of Biomechanical Engineering, 2012, 134, 011003.	1.3	76
56	Role of tapering in aortic wave reflection: hydraulic and mathematical model study. Journal of Biomechanics, 2000, 33, 299-306.	2.1	75
57	Ultrasound simulation of complex flow velocity fields based on computational fluid dynamics. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 546-556.	3.0	75
58	Resistive and Pulsatile Arterial Load as Predictors of Left Ventricular Mass and Geometry. Hypertension, 2015, 65, 85-92.	2.7	75
59	Patient-Specific Computer Simulation to Elucidate the Role of Contact Pressure in the Development of New Conduction Abnormalities After Catheter-Based Implantation of a Self-Expanding Aortic Valve. Circulation: Cardiovascular Interventions, 2018, 11, e005344.	3.9	74
60	From Vascular Corrosion Cast to Electrical Analog Model for the Study of Human Liver Hemodynamics and Perfusion. IEEE Transactions on Biomedical Engineering, 2011, 58, 25-35.	4.2	73
61	Wave Separation, Wave Intensity, the Reservoir-Wave Concept, and the Instantaneous Wave-Free Ratio. Hypertension, 2015, 66, 93-98.	2.7	73
62	Noninvasive determination of local pulse wave velocity and wave intensity: changes with age and gender in the carotid and femoral arteries of healthy human. Journal of Applied Physiology, 2012, 113, 727-735.	2.5	71
63	Virtual evaluation of stent graft deployment: A validated modeling and simulation study. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 13, 129-139.	3.1	71
64	Three- and four-element Windkessel models: Assessment of their fitting performance in a large cohort of healthy middle-aged individuals. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2008, 222, 417-428.	1.8	70
65	Patient-specific computational fluid dynamics: structured mesh generation from coronary angiography. Medical and Biological Engineering and Computing, 2010, 48, 371-380.	2.8	70
66	Abnormal Wave Reflections and Left Ventricular Hypertrophy Late After Coarctation of the Aorta Repair. Hypertension, 2017, 69, 501-509.	2.7	69
67	Determining carotid artery pressure from scaled diameter waveforms: comparison and validation of calibration techniques in 2026 subjects. Physiological Measurement, 2008, 29, 1267-1280.	2.1	67
68	Systemic telomere length and preclinical atherosclerosis: the Asklepios Study. European Heart Journal, 2009, 30, 3074-3081.	2.2	67
69	Noninvasive assessment of central and peripheral arterial pressure (waveforms): implications of calibration methods. Journal of Hypertension, 2010, 28, 300-305.	0.5	67
70	Patient-specific image-based computer simulation for theprediction of valve morphology and calcium displacement after TAVI with the Medtronic CoreValve and the Edwards SAPIEN valve. EuroIntervention, 2016, 11, 1044-1052.	3.2	67
71	Our capricious vessels: The influence of stent design and vessel geometry on the mechanics of intracranial aneurysm stent deployment. Journal of Biomechanics, 2012, 45, 1353-1359.	2.1	66
72	Ascending Aortic Aneurysm in Angiotensin Iiâ€“Infused Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 673-681.	2.4	65

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73	Thoracic epidural anesthesia impairs the hemodynamic response to acute pulmonary hypertension by deteriorating right ventricularâ€“pulmonary arterial coupling*. Critical Care Medicine, 2007, 35, 222-229.	0.9	64
74	Central Pulse Pressure and Its Hemodynamic Determinants in Middle-Aged Adults With Impaired Fasting Glucose and Diabetes. Diabetes Care, 2013, 36, 2359-2365.	8.6	64
75	Mathematical modeling of intraperitoneal drug delivery: simulation of drug distribution in a single tumor nodule. Drug Delivery, 2017, 24, 491-501.	5.7	64
76	Characterization of Cardiovascular Involvement in Pseudoxanthoma Elasticum Families. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 2646-2652.	2.4	62
77	Distance measurements for the assessment of carotid to femoral pulse wave velocity. Journal of Hypertension, 2009, 27, 2377-2385.	0.5	60
78	Noninvasive pulmonary artery wave intensity analysis in pulmonary hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H1603-H1611.	3.2	60
79	The Ghent Marfan Trial â€" A randomized, double-blind placebo controlled trial with losartan in Marfan patients treated with Î²-blockers. International Journal of Cardiology, 2012, 157, 354-358.	1.7	59
80	Dissecting abdominal aortic aneurysm in Ang II-infused mice: suprarenal branch ruptures and apparent luminal dilatation. Cardiovascular Research, 2015, 105, 213-222.	3.8	59
81	Fluid-Structure Interaction Simulation of Prosthetic Aortic Valves: Comparison between Immersed Boundary and Arbitrary Lagrangian-Eulerian Techniques for the Mesh Representation. PLoS ONE, 2016, 11, e0154517.	2.5	59
82	Effect of an Abdominal Aortic Aneurysm on Wave Reflection in the Aorta. IEEE Transactions on Biomedical Engineering, 2008, 55, 1602-1611.	4.2	58
83	Mechanical Properties of the Respiratory System Derived From Morphologic Insight. IEEE Transactions on Biomedical Engineering, 2009, 56, 949-959.	4.2	58
84	Two-dimensional blood velocity estimation with ultrasound: speckle tracking versus crossed-beam vector doppler based on flow simulations in a carotid bifurcation model. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 327-339.	3.0	58
85	Systemic and pulmonary hemodynamics assessed with a lumped-parameter heart-arterial interaction model. Journal of Engineering Mathematics, 2003, 47, 185-199.	1.2	57
86	Wave reflection leads to over- and underestimation of local wave speed by the PU- and QA-loop methods: theoretical basis and solution to the problem. Physiological Measurement, 2014, 35, 847-861.	2.1	56
87	Misinterpretation of the Determinants of Elevated Forward Wave Amplitude Inflates the Role of the Proximal Aorta. Journal of the American Heart Association, 2016, 5, .	3.7	56
88	Effects of endotoxic shock on right ventricular systolic function and mechanical efficiency. Cardiovascular Research, 2003, 59, 412-418.	3.8	55
89	Hemodynamic Impact of Anastomosis Size and Angle in Side-to-End Arteriovenous Fistulae: A Computer Analysis. Journal of Vascular Access, 2010, 11, 52-58.	0.9	55
90	Pulse Pressure Method and the Area Method for the Estimation of Total Arterial Compliance in Dogs: Sensitivity to Wave Reflection Intensity. Annals of Biomedical Engineering, 1999, 27, 480-485.	2.5	54

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91	Arterial pulsatile hemodynamic load induced by isometric exercise strongly predicts left ventricular mass in hypertension. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H320-H330.	3.2	54
92	Comparison of central pressure estimates obtained from SphygmoCor, Omron HEM-9000AI and carotid applanation tonometry. Journal of Hypertension, 2011, 29, 1115-1120.	0.5	53
93	Provisional Stenting of Coronary Bifurcations. JACC: Cardiovascular Interventions, 2014, 7, 325-333.	2.9	53
94	Using machine learning to characterize heart failure across the scales. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1987-2001.	2.8	53
95	Conductance catheter-based assessment of arterial input impedance, arterial function, and ventricular-vascular interaction in mice. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H1157-H1164.	3.2	51
96	Reference values for local arterial stiffness. Part B. Journal of Hypertension, 2015, 33, 1997-2009.	0.5	51
97	A finite element strategy to investigate the free expansion behaviour of a biodegradable polymeric stent. Journal of Biomechanics, 2015, 48, 2012-2018.	2.1	50
98	Aortic reflection coefficients and their association with global indexes of wave reflection in healthy controls and patients with Marfan's syndrome. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H2385-H2392.	3.2	48
99	Full-hexahedral structured meshing for image-based computational vascular modeling. Medical Engineering and Physics, 2011, 33, 1318-1325.	1.7	48
100	Muscleâ€“tendon tissue properties in the hypermobility type of Ehlersâ€Danlos syndrome. Arthritis Care and Research, 2012, 64, 766-772.	3.4	48
101	Effective Arterial Elastance Is Insensitive to Pulsatile Arterial Load. Hypertension, 2014, 64, 1022-1031.	2.7	48
102	A Noncontact Approach for the Evaluation of Large Artery Stiffness: A Preliminary Study. American Journal of Hypertension, 2008, 21, 1280-1283.	2.0	47
103	Impaired Cardiovascular Structure and Function in Adult Survivors of Severe Acute Malnutrition. Hypertension, 2014, 64, 664-671.	2.7	47
104	Virtual bench testing of new generation coronary stents. EuroIntervention, 2011, 7, 369-376.	3.2	46
105	Intrinsic cardiomyopathy in Marfan syndrome: results from in-vivo and ex-vivo studies of the Fbn1C1039G/+ model and longitudinal findings in humans. Pediatric Research, 2015, 78, 256-263.	2.3	45
106	Impact of Diabetes Mellitus on Ventricular Structure, Arterial Stiffness, and Pulsatile Hemodynamics in Heart Failure With Preserved Ejection Fraction. Journal of the American Heart Association, 2019, 8, e011457.	3.7	45
107	Functional analysis of the common carotid artery. Journal of Hypertension, 2004, 22, 973-981.	0.5	44
108	Simulation of fluidâ€“structure interaction with the interface artificial compressibility method. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 276-289.	2.1	44

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109	Late Systolic Central Hypertension as a Predictor of Incident Heart Failure: The Multiâ€Ethnic Study of Atherosclerosis. Journal of the American Heart Association, 2015, 4, e001335.	3.7	44
110	Towards a consensus on the understanding and analysis of the pulse waveform: Results from the 2016 Workshop on Arterial Hemodynamics: Past, present and future. Artery Research, 2017, 18, 75.	0.6	44
111	Pulmonary arterial compliance in dogs and pigs: the three-element windkessel model revisited. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H725-H731.	3.2	43
112	Assessment of arterial pressure wave reflection: Methodological considerations. Artery Research, 2008, 2, 122.	0.6	43
113	Oxidized Low-Density Lipoprotein Cholesterol Is Associated With Decreases in Cardiac Function Independent of Vascular Alterations. Hypertension, 2008, 52, 535-541.	2.7	43
114	The use of diameter distension waveforms as an alternative for tonometric pressure to assess carotid blood pressure. Physiological Measurement, 2010, 31, 543-553.	2.1	43
115	The Metabolic Syndrome and Carotid Intima-Media Thickness in Relation to the Parathyroid Hormone to 25-OH-D3 Ratio in a General Population. American Journal of Hypertension, 2011, 24, 102-109.	2.0	43
116	An Integrated Framework to Quantitatively Link Mouse-Specific Hemodynamics to Aneurysm Formation in Angiotensin II-infused ApoE â^'/â^' mice. Annals of Biomedical Engineering, 2011, 39, 2430-2444.	2.5	43
117	A 3D porous media liver lobule model: the importance of vascular septa and anisotropic permeability for homogeneous perfusion. Computer Methods in Biomechanics and Biomedical Engineering, 2014, 17, 1295-1310.	1.6	43
118	Aging is Associated With an Earlier Arrival of Reflected Waves Without a Distal Shift in Reflection Sites. Journal of the American Heart Association, 2016, 5, .	3.7	43
119	Hemodynamic effects of different lung-protective ventilation strategies in closed-chest pigs with normal lungs. Critical Care Medicine, 2006, 34, 2990-2996.	0.9	42
120	A simulation environment for validating ultrasonic blood flow and vessel wall imaging based on fluidâ€structure interaction simulations: Ultrasonic assessment of arterial distension and wall shear rate. Medical Physics, 2010, 37, 4318-4330.	3.0	41
121	Comparison of Non-Invasive Methods for Measurement of Local Pulse Wave Velocity Using FSI-Simulations and In Vivo Data. Annals of Biomedical Engineering, 2013, 41, 1567-1578.	2.5	41
122	Comparison of drug-eluting stent cell size using micro-CT: important data for bifurcation stent selection. EuroIntervention, 2008, 4, 391-396.	3.2	41
123	Noninvasive Doppler-derived myocardial performance index in rats with myocardial infarction: validation and correlation by conductance catheter. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H1540-H1548.	3.2	40
124	Replacing Vascular Corrosion Casting by In Vivo Micro-CT Imaging for Building 3D Cardiovascular Models in Mice. Molecular Imaging and Biology, 2011, 13, 78-86.	2.6	40
125	A computational exploration of helical arterio-venous graft designs. Journal of Biomechanics, 2013, 46, 345-353.	2.1	40
126	Increased Arterial Stiffness in Pre-eclamptic Pregnancy at Term and Early and Late Postpartum: A Combined Echocardiographic and Tonometric Study. American Journal of Hypertension, 2013, 26, 549-556.	2.0	40

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127	Effects of organic and inorganic nitrate on aortic and carotid haemodynamics in heart failure with preserved ejection fraction. European Journal of Heart Failure, 2017, 19, 1507-1515.	7.1	40
128	Predicting systolic and diastolic aortic blood pressure and stroke volume in the intact sheep. Journal of Biomechanics, 2001, 34, 41-50.	2.1	39
129	Epoprostenol treatment of acute pulmonary hypertension is associated with aÂparadoxical decrease in right ventricular contractility. Intensive Care Medicine, 2008, 34, 179-189.	8.2	36
130	Ambulatory arterial stiffness index does not accurately assess arterial stiffness. Journal of Hypertension, 2012, 30, 574-580.	0.5	36
131	Isosorbide Dinitrate, With or Without Hydralazine, Does Not Reduce Wave Reflections, Left Ventricular Hypertrophy, or Myocardial Fibrosis in Patients With Heart Failure With Preserved Ejection Fraction. Journal of the American Heart Association, 2017, 6, .	3.7	36
132	On-chip laser Doppler vibrometer for arterial pulse wave velocity measurement. Biomedical Optics Express, 2013, 4, 1229.	2.9	35
133	A 3D CFD model of the interstitial fluid pressure and drug distribution in heterogeneous tumor nodules during intraperitoneal chemotherapy. Drug Delivery, 2019, 26, 404-415.	5.7	35
134	Effect of BM-573 [N-Terbutyl-Nâ€²-[2-(4â€²-methylphenylamino)-5-nitro-benzenesulfonyl]urea], a Dual Thromboxane Synthase Inhibitor and Thromboxane Receptor Antagonist, in a Porcine Model of Acute Pulmonary Embolism. Journal of Pharmacology and Experimental Therapeutics, 2004, 310, 964-972.	2.5	34
135	Nonlinear isochrones in murine left ventricular pressure-volume loops: how well does the time-varying elastance concept hold?. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H1474-H1483.	3.2	33
136	The use of a generalized transfer function: different processing, different results!. Journal of Hypertension, 2007, 25, 1783-1787.	0.5	33
137	The reservoir pressure concept: the 3-element windkessel model revisited? Application to the Asklepios population study. Journal of Engineering Mathematics, 2009, 64, 417-428.	1.2	33
138	The change in arterial stiffness over the cardiac cycle rather than diastolic stiffness is independently associated with left ventricular mass index in healthy middle-aged individuals. Journal of Hypertension, 2012, 30, 396-402.	0.5	33
139	Pulsatile Load Components, Resistive Load and Incident Heart Failure: The Multi-Ethnic Study of Atherosclerosis (MESA). Journal of Cardiac Failure, 2016, 22, 988-995.	1.7	33
140	Patient-specific CFD simulation of intraventricular haemodynamics based on 3D ultrasound imaging. BioMedical Engineering OnLine, 2016, 15, 107.	2.7	33
141	Limitations of Doppler echocardiography for the post-operative evaluation of aortic coarctation. Journal of Biomechanics, 2001, 34, 951-960.	2.1	32
142	Noninvasive assessment of left ventricular and myocardial contractility in middle-aged men and women: disparate evolution above the age of 50?. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H856-H865.	3.2	32
143	Blood pressure waveform analysis by means of wavelet transform. Medical and Biological Engineering and Computing, 2009, 47, 165-173.	2.8	32
144	Vascular corrosion casting: analyzing wall shear stress in the portal vein and vascular abnormalities in portal hypertensive and cirrhotic rodents. Laboratory Investigation, 2010, 90, 1558-1572.	3.7	32

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145	Filling the void: A coalescent numerical and experimental technique to determine aortic stent graft mechanics. Journal of Biomechanics, 2013, 46, 2477-2482.	2.1	32
146	Experimental validation of a pulse wave propagation model for predicting hemodynamics after vascular access surgery. Journal of Biomechanics, 2012, 45, 1684-1691.	2.1	31
147	Incidence, severity, mortality, and confounding factors for dissecting AAA detection in angiotensin II-infused mice: a meta-analysis. Cardiovascular Research, 2015, 108, 159-170.	3.8	31
148	Effect of Obesity on Left Atrial Strain in Persons Aged 35â€“55 Years (The Asklepios Study). American Journal of Cardiology, 2019, 123, 854-861.	1.6	31
149	Patient-specific CFD models for intraventricular flow analysis from 3D ultrasound imaging: Comparison of three clinical cases. Journal of Biomechanics, 2017, 50, 144-150.	2.1	30
150	Echocardiographic assessment of aortic elastic properties with automated border detection in an ICU: in vivo application of the arctangent Langewouters model. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H2504-H2511.	3.2	29
151	A Multilevel Modeling Framework to Study Hepatic Perfusion Characteristics in Case of Liver Cirrhosis. Journal of Biomechanical Engineering, 2015, 137, 051007.	1.3	29
152	Pharmacological Characterization of N-tert-Butyl-Nâ€²-[2-(4â€²-methylphenylamino)-5-nitrobenzenesulfonyl]urea (BM-573), a Novel Thromboxane A2 Receptor Antagonist and Thromboxane Synthase Inhibitor in a Rat Model of Arterial Thrombosis and Its Effects on Bleeding Time. Journal of Pharmacology and Experimental Therapeutics, 2004, 309, 498-505.	2.5	28
153	Ventricular-arterial coupling in a rat model of reduced arterial compliance provoked by hypervitaminosis D and nicotine. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1942-H1951.	3.2	28
154	Modeling the Impact of Partial Hepatectomy on the Hepatic Hemodynamics Using a Rat Model. IEEE Transactions on Biomedical Engineering, 2012, 59, 3293-3303.	4.2	28
155	Non-invasive, energy-based assessment of patient-specific material properties of arterial tissue. Biomechanics and Modeling in Mechanobiology, 2015, 14, 1045-1056.	2.8	28
156	An Animal-Specific FSI Model of the Abdominal Aorta in Anesthetized Mice. Annals of Biomedical Engineering, 2015, 43, 1298-1309.	2.5	28
157	Tomographic PIV in a model of the left ventricle: 3D flow past biological and mechanical heart valves. Journal of Biomechanics, 2019, 90, 40-49.	2.1	28
158	Left ventricular wall stress normalization in chronic pressure-overloaded heart: a mathematical model study. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H1120-H1127.	3.2	27
159	Patient-specific computational haemodynamics: generation of structured and conformal hexahedral meshes from triangulated surfaces of vascular bifurcations. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 797-802.	1.6	27
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