Anne M Robertson

List of Publications by Year
in descending order

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69	1,868	304368	288905
papers	citations	22 h-index	40 g-index

70	70	70	2178
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Flow-induced, inflammation-mediated arterial wall remodeling in the formation and progression of intracranial aneurysms. Neurosurgical Focus, 2019, 47, E21.	1.0	157
2	A theoretical and non-destructive experimental approach for direct inclusion of measured collagen orientation and recruitment into mechanical models of the artery wall. Journal of Biomechanics, 2012, 45, 762-771.	0.9	149
3	Flow Conditions in the Intracranial Aneurysm Lumen Are Associated with Inflammation and Degenerative Changes of the Aneurysm Wall. American Journal of Neuroradiology, 2017, 38, 119-126.	1.2	127
4	Nerve regeneration and elastin formation within poly(glycerol sebacate)-based synthetic arterial grafts one-year post-implantation in a rat model. Biomaterials, 2014, 35, 165-173.	5.7	94
5	Mechanism of aortic medial matrix remodeling is distinct in patients with bicuspid aortic valve. Journal of Thoracic and Cardiovascular Surgery, 2014, 147, 1056-1064.	0.4	88
6	Diversity in the Strength and Structure of Unruptured Cerebral Aneurysms. Annals of Biomedical Engineering, 2015, 43, 1502-1515.	1.3	75
7	The influence of hemodynamic forces on biomarkers in the walls of elastase-induced aneurysms in rabbits. Neuroradiology, 2007, 49, 1041-1053.	1.1	66
8	Wall Mechanical Properties and Hemodynamics of Unruptured Intracranial Aneurysms. American Journal of Neuroradiology, 2015, 36, 1695-1703.	1.2	60
9	Local Hemodynamic Conditions Associated with Focal Changes in the Intracranial Aneurysm Wall. American Journal of Neuroradiology, 2019, 40, 510-516.	1.2	55
10	Flow of Oldroyd-B fluids in curved pipes of circular and annular cross-section. International Journal of Non-Linear Mechanics, 1996, 31, 1-20.	1.4	50
11	An inelastic multi-mechanism constitutive equation for cerebral arterial tissue. Biomechanics and Modeling in Mechanobiology, 2005, 4, 235-248.	1.4	46
12	Computational Fluid Dynamics in Aneurysm Research: Critical Reflections, Future Directions. American Journal of Neuroradiology, 2012, 33, 992-995.	1.2	44
13	Hemorheology. , 2008, , 63-120.		41
14	Layer-dependent role of collagen recruitment during loading of the rat bladder wall. Biomechanics and Modeling in Mechanobiology, 2018, 17, 403-417.	1.4	41
15	A Structural Multi-Mechanism Damage Model for Cerebral Arterial Tissue. Journal of Biomechanical Engineering, 2009, 131, 101013.	0.6	39
16	Hemodynamics and Anatomy of Elastase-Induced Rabbit Aneurysm Models: Similarity to Human Cerebral Aneurysms?. American Journal of Neuroradiology, 2011, 32, 595-601.	1.2	39
17	A structural multi-mechanism constitutive equation for cerebral arterial tissue. International Journal of Solids and Structures, 2009, 46, 2920-2928.	1.3	37
18	The numerical design of a parallel plate flow chamber for investigation of endothelial cell response to shear stress. Computers and Structures, 2003, 81, 535-546.	2.4	36

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19	A biodegradable synthetic graft for small arteries matches the performance of autologous vein in rat carotid arteries. Biomaterials, 2018, 181, 67-80.	5.7	35
20	A Parametric Model for Studies of Flow in Arterial Bifurcations. Annals of Biomedical Engineering, 2008, 36, 1515-1530.	1.3	34
21	Flow of second order fluids in curved pipes. Journal of Non-Newtonian Fluid Mechanics, 2000, 90, 91-116.	1.0	33
22	Regional Mapping of Flow and Wall Characteristics of Intracranial Aneurysms. Annals of Biomedical Engineering, 2016, 44, 3553-3567.	1.3	33
23	The Relation Between Flow Rate and Axial Pressure Gradient for Time-Periodic Poiseuille Flow in a Pipe. Journal of Mathematical Fluid Mechanics, 2005, 7, S215-S223.	0.4	31
24	Mechanobiology of the Arterial Wall. , 2013, , 275-347.		26
25	Calcification in Human Intracranial Aneurysms Is Highly Prevalent and Displays Both Atherosclerotic and Nonatherosclerotic Types. Arteriosclerosis, Thrombosis, and Vascular Biology, 2019, 39, 2157-2167.	1.1	24
26	Purine nucleoside phosphorylase inhibition ameliorates age-associated lower urinary tract dysfunctions. JCI Insight, 2020, 5, .	2.3	23
27	A DIRECTOR THEORY APPROACH FOR MODELING BLOOD FLOW IN THE ARTERIAL SYSTEM: AN ALTERNATIVE TO CLASSICAL 1D MODELS. Mathematical Models and Methods in Applied Sciences, 2005, 15, 871-906.	1.7	21
28	A Uniaxial Testing Approach for Consistent Failure in Vascular Tissues. Journal of Biomechanical Engineering, 2018, 140, .	0.6	21
29	Combining data from multiple sources to study mechanisms of aneurysm disease: Tools and techniques. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3133.	1.0	20
30	Regional Aneurysm Wall Enhancement is Affected by Local Hemodynamics: A 7T MRI Study. American Journal of Neuroradiology, 2021, 42, 464-470.	1.2	20
31	Rabbit aneurysm models mimic histologic wall types identified in human intracranial aneurysms. Journal of NeuroInterventional Surgery, 2018, 10, 411-415.	2.0	19
32	Hemodynamics in aneurysm blebs with different wall characteristics. Journal of NeuroInterventional Surgery, 2021, 13, 642-646.	2.0	19
33	Dynamic behaviour of buoyant high viscosity droplets rising in a quiescent liquid. Journal of Fluid Mechanics, 2015, 778, 485-533.	1.4	18
34	A data-driven approach for addressing the lack of flow waveform data in studies of cerebral arterial flow in older adults. Physiological Measurement, 2018, 39, 015006.	1.2	18
35	Sensitivity of CFD Based Hemodynamic Results in Rabbit Aneurysm Models to Idealizations in Surrounding Vasculature. Journal of Biomechanical Engineering, 2010, 132, 091009.	0.6	17
36	Can aspect ratio be used to categorize intra-aneurysmal hemodynamics?â€"A study of elastase induced aneurysms in rabbit. Journal of Biomechanics, 2011, 44, 2809-2816.	0.9	17

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37	Blebs in intracranial aneurysms: prevalence and general characteristics. Journal of NeuroInterventional Surgery, 2021, 13, 226-230.	2.0	16
38	Fluid-structure interaction simulations of cerebral arteries modeled by isotropic and anisotropic constitutive laws. Computational Mechanics, 2015, 55, 479-498.	2.2	15
39	Hemodynamic conditions that favor bleb formation in cerebral aneurysms. Journal of NeuroInterventional Surgery, 2021, 13, 231-236.	2.0	15
40	Finite element modeling of cerebral angioplasty using a structural multiâ€mechanism anisotropic damage model. International Journal for Numerical Methods in Engineering, 2012, 92, 457-474.	1.5	13
41	Microwave-assisted facile fabrication of porous poly (glycerol sebacate) scaffolds. Journal of Biomaterials Science, Polymer Edition, 2018, 29, 907-916.	1.9	13
42	Degradation and erosion mechanisms of bioresorbable porous acellular vascular grafts: an in vitro investigation. Journal of the Royal Society Interface, 2017, 14, 20170102.	1.5	12
43	Quantitative multiphoton microscopy of murine urinary bladder morphology during in situ uniaxial loading. Acta Biomaterialia, 2017, 64, 59-66.	4.1	11
44	Multiphoton Imaging of Collagen, Elastin, and Calcification in Intact Softâ€Tissue Samples. Current Protocols in Cytometry, 2019, 87, e51.	3.7	11
45	Traffic Flow Stabilization. , 0, , .		10
46	The unexplained success of stentplasty vasospasm treatment. Clinical Neuroradiology, 2019, 29, 763-774.	1.0	9
47	Computational modeling reveals the relationship between intrinsic failure properties and uniaxial biomechanical behavior of arterial tissue. Biomechanics and Modeling in Mechanobiology, 2019, 18, 1791-1807.	1.4	8
48	ON VISCOUS FLOW IN CURVED PIPES OF NON-UNIFORM CROSS-SECTION. International Journal for Numerical Methods in Fluids, 1996, 22, 771-798.	0.9	6
49	Review of Relevant Continuum Mechanics. , 2008, , 1-62.		6
50	Identification of Small, Regularly Shaped Cerebral Aneurysms Prone to Rupture. American Journal of Neuroradiology, 2022, 43, 547-553.	1.2	6
51	ON THE EFFECT OF APEX GEOMETRY ON WALL SHEAR STRESS AND PRESSURE IN TWO-DIMENSIONAL MODELS OF ARTERIAL BIFURCATIONS. Mathematical Models and Methods in Applied Sciences, 2001, 11, 499-520.	1.7	5
52	Effect of Macro-calcification on the Failure Mechanics of Intracranial Aneurysmal Wall Tissue. Experimental Mechanics, 2021, 61, 5-18.	1.1	5
53	Structurally motivated damage models for arterial walls. Theory and application. Modeling, Simulation and Applications, 2012, , 143-185.	1.3	4
54	In vitroassessment of the trackability of neurovascular intermediate catheters: a comparative analysis. Journal of Medical Engineering and Technology, 2014, 38, 379-384.	0.8	4

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55	Analysis of hemodynamic changes from aneurysm inception to large sizes. International Journal for Numerical Methods in Biomedical Engineering, 2021, 37, e3415.	1.0	4
56	Prediction of bleb formation in intracranial aneurysms using machine learning models based on aneurysm hemodynamics, geometry, location, and patient population. Journal of NeuroInterventional Surgery, 2022, 14, 1002-1007.	2.0	4
57	A Structural Multi-Mechanism Damage Model for Cerebral Arterial Tissue and its Finite Element Implementation. , 2008, , .		3
58	Flow of a non-Newtonian fluid between intersecting planes, one of which is moving. Rheologica Acta, 1996, 35, 520-522.	1.1	2
59	EXISTENCE AND UNIQUENESS OF STEADY, FULLY DEVELOPED FLOWS OF SECOND ORDER FLUIDS IN CURVED PIPES. Mathematical Models and Methods in Applied Sciences, 2001, 11, 1055-1071.	1.7	2
60	Finite Element Modeling of Cerebral Angioplasty Using a Multi-Mechanism Structural Damage Model. , 2009, , .		2
61	Smart Guidewires for Smooth Navigation in Neurovascular Intervention. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	2
62	An In Vitro Device for Evaluation of Cellular Response to Flows Found at the Apex of Arterial Bifurcations. , 2010, , 631-657.		2
63	A constrained mixture-micturition-growth (CMMG) model of the urinary bladder: Application to partial bladder outlet obstruction (BOO). Journal of the Mechanical Behavior of Biomedical Materials, 2022, 134, 105337.	1.5	2
64	Adaptive Remodeling in the Elastase-Induced Rabbit Aneurysms. Experimental Mechanics, 2021, 61, 263-283.	1.1	1
65	Hemodynamics of Elastase-Induced Aneurysms in Rabbit: A New High Flow Bifurcation Model. , 2011, , .		1
66	Abrupt Recruitment of Medial Collagen Fibers in the Rabbit Carotid Artery. , 2011, , .		0
67	Smart guidewires for smooth navigation in neurovascular intervention. , 2015, , .		0
68	Theory and application of arterial tissue in-host remodelling. , 2015, 2015, 1869-72.		0
69	Differences Between Ruptured Aneurysms With and Without Blebs: Mechanistic Implications. Cardiovascular Engineering and Technology, 0, , .	0.7	0