Peter D Weinberg

List of Publications by Year
in descending order

75 papers	2,177 citations	236925 25 h-index	254184 43 g-index
78 all docs	78 docs citations	78 times ranked	2264 citing authors

#	Article	IF	Citations
1	Improvement and validation of a computational model of flow in the swirling well cell culture model. Biotechnology and Bioengineering, 2022, 119, 72-88.	3.3	4
2	Contrast Agent-Free Assessment of Blood Flow and Wall Shear Stress in the Rabbit Aorta using Ultrasound Image Velocimetry. Ultrasound in Medicine and Biology, 2022, 48, 437-449.	1.5	7
3	Haemodynamic Wall Shear Stress, Endothelial Permeability and Atherosclerosisâ€"A Triad of Controversy. Frontiers in Bioengineering and Biotechnology, 2022, 10, 836680.	4.1	16
4	In Memoriam Colin Caro 1925-2022. Journal of Biomechanical Engineering, 2022, , .	1.3	0
5	Estimating Arterial Cyclic Strain from the Spacing of Endothelial Nuclei. Experimental Mechanics, 2021, 61, 171-190.	2.0	2
6	The Role of Tricellular Junctions in the Transport of Macromolecules Across Endothelium. Cardiovascular Engineering and Technology, 2021, 12, 101-113.	1.6	11
7	Segmenting Growth of Endothelial Cells in 6-Well Plates on an Orbital Shaker for Mechanobiological Studies. Journal of Visualized Experiments, 2021, , .	0.3	5
8	Leucine-Rich Î±-2-Glycoprotein 1 Suppresses Endothelial Cell Activation Through ADAM10-Mediated Shedding of TNF-Î± Receptor. Frontiers in Cell and Developmental Biology, 2021, 9, 706143.	3.7	11
9	Endothelial cells exposed to atheroprotective flow secrete follistatin-like 1 protein which reduces transcytosis and inflammation. Atherosclerosis, 2021, 333, 56-66.	0.8	16
10	S1P in the development of atherosclerosis: roles of hemodynamic wall shear stress and endothelial permeability. Tissue Barriers, 2021, 9, 1959243.	3.2	1
11	Endothelial cells do not align with the mean wall shear stress vector. Journal of the Royal Society Interface, 2021, 18, 20200772.	3.4	12
12	Wave Intensity Analysis Combined With Machine Learning can Detect Impaired Stroke Volume in Simulations of Heart Failure. Frontiers in Bioengineering and Biotechnology, 2021, 9, 737055.	4.1	2
13	Comparison of arterial wave intensity analysis by pressureâ€"velocity and diameterâ€"velocity methods in a virtual population of adult subjects. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2020, 234, 1260-1276.	1.8	6
14	3D confocal microscope imaging of macromolecule uptake in the intact brachiocephalic artery. Atherosclerosis, 2020, 310, 93-101.	0.8	0
15	High Frame Rate Contrast-Enhanced Ultrasound Imaging for Slow Lymphatic Flow: Influence of Ultrasound Pressure and Flow Rate on Bubble Disruption and Image Persistence. Ultrasound in Medicine and Biology, 2019, 45, 2456-2470.	1.5	9
16	Cysteamine inhibits lysosomal oxidation of low density lipoprotein in human macrophages and reduces atherosclerosis in mice. Atherosclerosis, 2019, 291, 9-18.	0.8	21
17	Understanding mechanobiology in cultured endothelium: A review of the orbital shaker method. Atherosclerosis, 2019, 285, 170-177.	0.8	49
18	3D Super-Resolution US Imaging of Rabbit Lymph Node Vasculature in Vivo by Using Microbubbles. Radiology, 2019, 291, 642-650.	7.3	82

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19	Acoustic Wave Sparsely-Activated Localization Microscopy (AWSALM): In Vivo Fast Ultrasound Super-Resolution Imaging using Nanodroplets. , 2019, , .		9
20	P134 A New Method for Non-invasive Measurement of Arterial Wave Intensity, Speed and Reflection. Artery Research, 2019, 25, S172.	0.6	1
21	Orbitally shaken shallow fluid layers. I. Regime classification. Physics of Fluids, 2018, 30, 032107.	4.0	14
22	Orbitally shaken shallow fluid layers. II. An improved wall shear stress model. Physics of Fluids, 2018, 30, 032108.	4.0	13
23	ASAP: Super-Contrast Vasculature Imaging Using Coherence Analysis and High Frame-Rate Contrast Enhanced Ultrasound. IEEE Transactions on Medical Imaging, 2018, 37, 1847-1856.	8.9	35
24	Investigation of Nanodroplet Adhesion to Endothelial Cells Under Atheroprone Flow Conditions. , 2018, , .		5
25	Spatial correlations between MRI-derived wall shear stress and vessel wall thickness in the carotid bifurcation. European Radiology Experimental, 2018, 2, 27.	3.4	11
26	A novel method for segmenting growth of cells in sheared endothelial culture reveals the secretion of an anti-inflammatory mediator. Journal of Biological Engineering, 2018, 12, 15.	4.7	26
27	Noradrenaline has opposing effects on the hydraulic conductance of arterial intima and media. Journal of Biomechanics, 2017, 54, 4-10.	2.1	5
28	Ultrasound imaging velocimetry with interleaved images for improved pulsatile arterial flow measurements: a new correction method, experimental and <i>in vivo</i> validation. Journal of the Royal Society Interface, 2017, 14, 20160761.	3.4	14
29	Visualization of three pathways for macromolecule transport across cultured endothelium and their modification by flow. American Journal of Physiology - Heart and Circulatory Physiology, 2017, 313, H959-H973.	3.2	38
30	Understanding the fluid mechanics behind transverse wall shear stress. Journal of Biomechanics, 2017, 50, 102-109.	2.1	56
31	Role of endothelial permeability hotspots and endothelial mitosis in determining age-related patterns of macromolecule uptake by the rabbit aortic wall near branch points. Atherosclerosis, 2016, 250, 77-83.	0.8	3
32	TWIST1 Integrates Endothelial Responses to Flow in Vascular Dysfunction and Atherosclerosis. Circulation Research, 2016, 119, 450-462.	4.5	115
33	Mass Transport Properties of the Rabbit Aortic Wall. PLoS ONE, 2015, 10, e0120363.	2.5	6
34	Comparison of Statistical Methods for Assessing Spatial Correlations Between Maps of Different Arterial Properties. Journal of Biomechanical Engineering, 2015, 137, 101003.	1.3	18
35	Change of Direction in the Biomechanics of Atherosclerosis. Annals of Biomedical Engineering, 2015, 43, 16-25.	2.5	97
36	Flow Velocity Mapping Using Contrast Enhanced High-Frame-Rate Plane Wave Ultrasound and Image Tracking: Methods and Initial inÂVitro and inÂVivo Evaluation. Ultrasound in Medicine and Biology, 2015, 41, 2913-2925.	1.5	147

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37	Elevated Uptake of Plasma Macromolecules by Regions of Arterial Wall Predisposed to Plaque Instability in a Mouse Model. PLoS ONE, 2014, 9, e115728.	2.5	8
38	Computation in the rabbit aorta of a new metric â€“ the transverse wall shear stress â€“ to quantify the multidirectional character of disturbed blood flow. Journal of Biomechanics, 2013, 46, 2651-2658.	2.1	142
39	Pigs fed saturated fat/cholesterol have a blunted hypothalamic-pituitary-adrenal function, are insulin resistant and have decreased expression of IRS-1, PGC1Î± and PPARÎ±. Journal of Nutritional Biochemistry, 2013, 24, 656-663.	4.2	12
40	Ultrasound Imaging Velocimetry: Effect of Beam Sweeping on Velocity Estimation. Ultrasound in Medicine and Biology, 2013, 39, 1672-1681.	1.5	26
41	Does low and oscillatory wall shear stress correlate spatially with early atherosclerosis? A systematic review. Cardiovascular Research, 2013, 99, 242-250.	3.8	285
42	A Novel Method for Quantifying Spatial Correlations Between Patterns of Atherosclerosis and Hemodynamic Factors. Journal of Biomechanical Engineering, 2013, 135, 021023.	1.3	17
43	Haemodynamics in the mouse aortic arch computed from MRI-derived velocities at the aortic root. Journal of the Royal Society Interface, 2012, 9, 2834-2844.	3.4	37
44	Effect of aortic taper on patterns of blood flow and wall shear stress in rabbits: Association with age. Atherosclerosis, 2012, 223, 114-121.	0.8	27
45	High throughput en face mapping of arterial permeability using tile scanning confocal microscopy. Atherosclerosis, 2012, 224, 417-425.	0.8	11
46	Ultrasound imaging velocimetry: Toward reliable wall shear stress measurements. European Journal of Mechanics, B/Fluids, 2012, 35, 70-75.	2.5	48
47	Shape and Compliance of Endothelial Cells after Shear Stress In Vitro or from Different Aortic Regions: Scanning Ion Conductance Microscopy Study. PLoS ONE, 2012, 7, e31228.	2.5	35
48	Dendritic Cells Lower the Permeability of Endothelial Monolayers. Cellular and Molecular Bioengineering, 2012, 5, 184-193.	2.1	7
49	Atheroprotective effects of dietary <scp>l</scp>-arginine increase with age in cholesterol-fed rabbits. British Journal of Nutrition, 2011, 105, 1439-1447.	2.3	15
50	Morphological Evidence for a Change in the Pattern of Aortic Wall Shear Stress With Age. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, 543-550.	2.4	23
51	Role of Shear Stress in Endothelial Cell Morphology and Expression of Cyclooxygenase Isoforms. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, 384-391.	2.4	71
52	Acute and chronic exposure to shear stress have opposite effects on endothelial permeability to macromolecules. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H1850-H1856.	3.2	74
53	Intimal cushions and endothelial nuclear elongation around mouse aortic branches and their spatial correspondence with patterns of lipid deposition. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H536-H544.	3.2	10
54	Effect of Reynolds number and flow division on patterns of haemodynamic wall shear stress near branch points in the descending thoracic aorta. Journal of the Royal Society Interface, 2009, 6, 539-548.	3.4	26

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55	Modelling pulse wave propagation in the rabbit systemic circulation to assess the effects of altered nitric oxide synthesis. Journal of Biomechanics, 2009, 42, 2116-2123.	2.1	23
56	Twenty-fold difference in hemodynamic wall shear stress between murine and human aortas. Journal of Biomechanics, 2007, 40, 1594-1598.	2.1	62
57	Use of a desktop scanner and spreadsheet software for mapping arterial disease. Scanning, 2006, 27, 126-131.	1.5	4
58	Analysis of the variable effect of dietary vitamin E supplements on experimental atherosclerosis. Journal of Plant Physiology, 2005, 162, 823-833.	3.5	4
59	Rate-Limiting Steps in the Development of Atherosclerosis: The Response-to-Influx Theory. Journal of Vascular Research, 2004, 41, 1-17.	1.4	32
60	Two-dimensional Maps of Short-term Albumin Uptake by the Immature and Mature Rabbit Aortic Wall Around Branch Points. Journal of Biomechanical Engineering, 2002, 124, 684-690.	1.3	12
61	Disease patterns at arterial branches and their relation to flow. Biorheology, 2002, 39, 533-7.	0.4	20
62	Effect of altered flow on the pattern of permeability around rabbit aortic branches. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 281, H53-H59.	3.2	17
63	Distribution of Lipid Deposits Around Aortic Branches of Mice Lacking LDL Receptors and Apolipoprotein E. Arteriosclerosis, Thrombosis, and Vascular Biology, 2001, 21, 1220-1225.	2.4	23
64	Strain-Dependent Differences in the Pattern of Aortic Lipid Deposition in Cholesterol-Fed Rabbits. Experimental and Molecular Pathology, 2001, 71, 161-170.	2.1	15
65	Distribution of Disease around the Aortocoeliac Branch of White Carneau Pigeons at Different Ages. Experimental and Molecular Pathology, 2000, 68, 95-103.	2.1	4
66	Two Patterns of Lipid Deposition in the Cholesterol-Fed Rabbit. Arteriosclerosis, Thrombosis, and Vascular Biology, 1999, 19, 2376-2386.	2.4	29
67	Contrasting Patterns of Spontaneous Aortic Disease in Young and Old Rabbits. Arteriosclerosis, Thrombosis, and Vascular Biology, 1998, 18, 300-308.	2.4	38
68	Evans' blue dye abolishes endothelium-dependent relaxation of rabbit aortic rings. Atherosclerosis, 1997, 129, 129-131.	0.8	7
69	Changes With Age in the Influence of Endogenous Nitric Oxide on Transport Properties of the Rabbit Aortic Wall Near Branches. Arteriosclerosis, Thrombosis, and Vascular Biology, 1997, 17, 1361-1368.	2.4	31
70	High-resolution mapping of the frequency of lipid deposits in thoracic aortae from cholesterol-fed and heritable hyperlipidaemic rabbits. Atherosclerosis, 1996, 120, 249-253.	0.8	15
71	Effect of Age on the Pattern of Short-term Albumin Uptake by the Rabbit Aortic Wall Near Intercostal Branch Ostia. Arteriosclerosis, Thrombosis, and Vascular Biology, 1996, 16, 317-327.	2.4	25
72	Age-related variations in transport properties of the rabbit arterial wall near branches. Atherosclerosis, 1994, 106, 1-8.	0.8	29

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73	Densitometry of photomicrographic negatives for the determination of fluorophores in sections of tissue. Analytica Chimica Acta, 1989, 227, 235-241.	5.4	12
74	Application of fluorescence densitometry to the study of net albumin uptake by the rabbit aortic wall up- and downstream of intercostal ostia. Atherosclerosis, 1988, 74, 139-148.	0.8	31
75	Nonâ€linear shrinkage of Batson's #17 resin during vascular corrosion casting. Journal of Anatomy, 0, , .	1.5	1