Bram Trachet

List of Publications by Year
in descending order

52 papers	1,324 citations	304743 22 h-index	361022 35 g-index
52 all docs	52 docs citations	52 times ranked	1992 citing authors

#	Article	IF	Citations
1	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
2	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
3	Limitations and pitfalls of non-invasive measurement of arterial pressure wave reflections and pulse wave velocity. Artery Research, 2009, 3, 79.	0.6	79
4	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
5	Ascending Aortic Aneurysm in Angiotensin IIâ€“Infused Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 673-681.	2.4	65
6	TGFÎ² (Transforming Growth Factor-Î²) Blockade Induces a Human-Like Disease in a Nondissecting Mouse Model of Abdominal Aortic Aneurysm. Arteriosclerosis, Thrombosis, and Vascular Biology, 2017, 37, 2171-2181.	2.4	64
7	Characterization of Cardiovascular Involvement in Pseudoxanthoma Elasticum Families. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 2646-2652.	2.4	62
8	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
9	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
10	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
11	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
12	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
13	Role of the reninâ€“angiotensin system on abdominal aortic aneurysms. European Journal of Clinical Investigation, 2013, 43, 1328-1338.	3.4	34
14	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
15	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
16	Validation of the murine aortic arch as a model to study human vascular diseases. Journal of Anatomy, 2010, 216, 563-571.	1.5	29
17	An Animal-Specific FSI Model of the Abdominal Aorta in Anesthetized Mice. Annals of Biomedical Engineering, 2015, 43, 1298-1309.	2.5	28
18	The Impact of Simplified Boundary Conditions and Aortic Arch Inclusion on CFD Simulations in the Mouse Aorta: A Comparison With Mouse-specific Reference Data. Journal of Biomechanical Engineering, 2011, 133, 121006.	1.3	27

#	Article	IF	Citations
19	Haemodynamic impact of stentâ€“vessel (mal)apposition following carotid artery stenting: mind the gaps!. Computer Methods in Biomechanics and Biomedical Engineering, 2013, 16, 648-659.	1.6	27
20	Assessment of shear stress related parameters in the carotid bifurcation using mouse-specific FSI simulations. Journal of Biomechanics, 2016, 49, 2135-2142.	2.1	26
21	The influence of aortic dimensions on calculated wall shear stress in the mouse aortic arch. Computer Methods in Biomechanics and Biomedical Engineering, 2009, 12, 491-499.	1.6	23
22	Propagation-based phase-contrast synchrotron imaging of aortic dissection in mice: from individual elastic lamella to 3D analysis. Scientific Reports, 2018, 8, 2223.	3.3	23
23	Noninvasive Cardiac Output and Central Systolic Pressure From Cuff-Pressure and Pulse Wave Velocity. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1968-1981.	6.3	23
24	Effect of the degree of LAD stenosis on â€œcompetitive flowâ€•and flow field characteristics in LIMA-to-LAD bypass surgery. Medical and Biological Engineering and Computing, 2012, 50, 839-849.	2.8	22
25	Performance Comparison of Ultrasound-Based Methods to Assess Aortic Diameter and Stiffness in Normal and Aneurysmal Mice. PLoS ONE, 2015, 10, e0129007.	2.5	22
26	The influence of anesthesia and fluidâ€“structure interaction on simulated shear stress patterns in the carotid bifurcation of mice. Journal of Biomechanics, 2016, 49, 2741-2747.	2.1	22
27	Shear Stress Metrics and Their Relation to Atherosclerosis: An In Vivo Follow-up Study in Atherosclerotic Mice. Annals of Biomedical Engineering, 2016, 44, 2327-2338.	2.5	21
28	A 1D model of the arterial circulation in mice. ALTEX: Alternatives To Animal Experimentation, 2016, 33, 13-28.	1.5	17
29	A Computational Study of the Hemodynamic Impact of Open- Versus Closed-Cell Stent Design in Carotid Artery Stenting. Artificial Organs, 2013, 37, E96-E106.	1.9	15
30	Vulnerable Plaque Detection and Quantification with Gold Particleâ€“Enhanced Computed Tomography in Atherosclerotic Mouse Models. Molecular Imaging, 2015, 14, 7290.2015.00009.	1.4	12
31	Emerging Pharmacological Treatments to Prevent Abdominal Aortic Aneurysm Growth and Rupture. Current Pharmaceutical Design, 2015, 21, 4000-4006.	1.9	12
32	Co-localization of microstructural damage and excessive mechanical strain at aortic branches in angiotensin-II-infused mice. Biomechanics and Modeling in Mechanobiology, 2020, 19, 81-97.	2.8	11
33	On the importance of the nonuniform aortic stiffening in the hemodynamics of physiological aging. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 317, H1125-H1133.	3.2	10
34	Validation of the Arteriograph working principle: questions still remain. Journal of Hypertension, 2011, 29, 619.	0.5	9
35	Absence of Cardiovascular Manifestations in a Haploinsufficient Tgfbr1 Mouse Model. PLoS ONE, 2014, 9, e89749.	2.5	9
36	Should We Ignore What We Cannot Measure? How Non-Uniform Stretch, Non-Uniform Wall Thickness and Minor Side Branches Affect Computational Aortic Biomechanics in Mice. Annals of Biomedical Engineering, 2018, 46, 159-170.	2.5	9

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37	Dissecting abdominal aortic aneurysm in Angiotensin II-infused mice: the importance of imaging. Current Pharmaceutical Design, 2015, 21, 4049-4060.	1.9	8
38	Inverse modelling of image-based patient-specific blood vessels: zero-pressure geometry and<i>in vivo</i>stress incorporation. ESAIM: Mathematical Modelling and Numerical Analysis, 2013, 47, 1059-1075.	1.9	7
39	Synchrotron-based visualization and segmentation of elastic lamellae in the mouse carotid artery during quasi-static pressure inflation. Journal of the Royal Society Interface, 2019, 16, 20190179.	3.4	7
40	Outflow Through Aortic Side Branches Drives False Lumen Patency in Type B Aortic Dissection. Frontiers in Cardiovascular Medicine, 2021, 8, 710603.	2.4	6
41	Longitudinal follow-up of ascending versus abdominal aortic aneurysm formation in angiotensin II-infused ApoEâˆ’/âˆ’ mice. Artery Research, 2014, 8, 16.	0.6	4
42	Early Morphofunctional Changes in AngII-Infused Mice Contribute to Regional Onset of Aortic Aneurysm and Dissection. Journal of Vascular Research, 2020, 57, 367-375.	1.4	4
43	Validation of the arteriograph working principle. Journal of Hypertension, 2011, 29, 1662-1663.	0.5	3
44	Pitfalls of Doppler Measurements for Arterial Blood Flow Quantification in Small Animal Research: A Study Based on Virtual Ultrasound Imaging. Ultrasound in Medicine and Biology, 2016, 42, 1399-1411.	1.5	3
45	Synchrotron-based phase contrast imaging of cardiovascular tissue in miceâ€”grating interferometry or phase propagation?. Biomedical Physics and Engineering Express, 2018, 5, 015010.	1.2	3
46	A multi-angle plane wave imaging approach for high frequency 2D flow visualization in small animals: Simulation study in the murine arterial system. , 2014, , .		1
47	Editorial (Thematic Issue: Novel Insights on Aortic Aneurysm). Current Pharmaceutical Design, 2015, 21, 3993-3995.	1.9	1
48	Wall shear stress in the mouse aortic arch : Does size matter?. IFMBE Proceedings, 2009, , 1994-1998.	0.3	1
49	Resolving in-vivo flow fields in the systemic circulation of the mouse through combined ultrasound imaging and computational fluid dynamics. , 2010, , .		0
50	CFD Challenge: Solutions Using the Commercial Finite Volume Solver, Fluent, and a pyFormex-Generated Full Hexahedral Mesh. , 2012, , .		0
51	Patient-Specific Modelling of Aortic Arch Wall Shear Stress Patterns in Patients With Marfan Syndrome. , 2009, , .		0
52	Structural Simulation of a Mouse-Specific Abdominal Aorta. , 2011, , .		0