Erik N T P Bakker

List of Publications by Year
in descending order

71 papers	2,604 citations	185998 28 h-index	197535 49 g-index
75 all docs	75 docs citations	75 times ranked	3014 citing authors

#	Article	IF	Citations
1	Lymphatic Clearance of the Brain: Perivascular, Paravascular and Significance for Neurodegenerative Diseases. Cellular and Molecular Neurobiology, 2016, 36, 181-194.	1.7	297
2	Small Artery Remodeling Depends on Tissue-Type Transglutaminase. Circulation Research, 2005, 96, 119-126.	2.0	164
3	Inward Remodeling Follows Chronic Vasoconstriction in Isolated Resistance Arteries. Journal of Vascular Research, 2002, 39, 12-20.	0.6	140
4	Paravascular spaces at the brain surface: Low resistance pathways for cerebrospinal fluid flow. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 719-726.	2.4	133
5	Flow-Dependent Remodeling of Small Arteries in Mice Deficient for Tissue-Type Transglutaminase. Circulation Research, 2006, 99, 86-92.	2.0	106
6	Paravascular channels, cisterns, and the subarachnoid space in the rat brain: A single compartment with preferential pathways. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 1374-1385.	2.4	104
7	Small Artery Remodeling: Current Concepts and Questions. Journal of Vascular Research, 2010, 47, 183-202.	0.6	86
8	Clearance from the mouse brain by convection of interstitial fluid towards the ventricular system. Fluids and Barriers of the CNS, 2015, 12, 23.	2.4	85
9	Blood flow-dependent arterial remodelling is facilitated by inflammation but directed by vascular tone. Cardiovascular Research, 2008, 78, 341-348.	1.8	78
10	Transglutaminases in Vascular Biology: Relevance for Vascular Remodeling and Atherosclerosis. Journal of Vascular Research, 2008, 45, 271-278.	0.6	77
11	Endothelial basement membrane laminin 511 is essential for shear stress response. EMBO Journal, 2017, 36, 183-201.	3.5	75
12	Activation of Resistance Arteries with Endothelin-1: From Vasoconstriction to Functional Adaptation and Remodeling. Journal of Vascular Research, 2004, 41, 174-182.	0.6	70
13	TR3 Nuclear Orphan Receptor Prevents Cyclic Stretch-Induced Proliferation of Venous Smooth Muscle Cells. American Journal of Pathology, 2006, 168, 2027-2035.	1.9	62
14	Organoid culture of cannulated rat resistance arteries: effect of serum factors on vasoactivity and remodeling. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H1233-H1240.	1.5	58
15	Downregulation of Bone Morphogenetic Protein 4 Expression in Coronary Arterial Endothelial Cells. Arteriosclerosis, Thrombosis, and Vascular Biology, 2007, 27, 776-782.	1.1	51
16	Small Artery Remodeling and Erythrocyte Deformability in <i>L</i>-NAME-Induced Hypertension: Role of Transglutaminases. Journal of Vascular Research, 2008, 45, 10-18.	0.6	49
17	The Redox State of Transglutaminase 2 Controls Arterial Remodeling. PLoS ONE, 2011, 6, e23067.	1.1	44
18	Nuclear receptor Nur77 inhibits vascular outward remodelling and reduces macrophage accumulation and matrix metalloproteinase levels. Cardiovascular Research, 2010, 87, 561-568.	1.8	42

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19	Shear Stress, Reactive Oxygen Species, and Arterial Structure and Function. Antioxidants and Redox Signaling, 2009, 11, 1699-1709.	2.5	37
20	Hypertension reduces soluble guanylyl cyclase expression in the mouse aorta via the Notch signaling pathway. Scientific Reports, 2017, 7, 1334.	1.6	37
21	Calcium channel blockade prevents pressure-dependent inward remodeling in isolated subendocardial resistance vessels. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H1236-H1245.	1.5	34
22	Paravascular spaces: entry to or exit from the brain?. Experimental Physiology, 2019, 104, 1013-1017.	0.9	34
23	Flow inhibits inward remodeling in cannulated porcine small coronary arteries. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H2632-H2640.	1.5	33
24	Activation of Extracellular Transglutaminase 2 by Mechanical Force in the Arterial Wall. Journal of Vascular Research, 2013, 50, 383-395.	0.6	31
25	Smooth Muscle Biomechanics and Plasticity: Relevance for Vascular Calibre and Remodelling. Basic and Clinical Pharmacology and Toxicology, 2012, 110, 35-41.	1.2	30
26	Components of acetylcholine-induced dilation in isolated rat arterioles. American Journal of Physiology - Heart and Circulatory Physiology, 1997, 273, H1848-H1853.	1.5	28
27	Remodeling of resistance arteries in organoid culture is modulated by pressure and pressure pulsation and depends on vasomotion. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 286, H2052-H2056.	1.5	28
28	Strain-dependent susceptibility for hypertension in mice resides in the natural killer gene complex. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H1273-H1282.	1.5	28
29	Tissue transglutaminase activity is involved in the differentiation of oligodendrocyte precursor cells into myelinâ€forming oligodendrocytes during CNS remyelination. Glia, 2011, 59, 1622-1634.	2.5	28
30	Differential structural adaptation to haemodynamics along single rat cremaster arterioles. Journal of Physiology, 2003, 548, 549-555.	1.3	28
31	Tissue Transglutaminase in Alzheimer's Disease: Involvement in Pathogenesis and its Potential as a Therapeutic Target. Journal of Alzheimer's Disease, 2014, 42, S289-S303.	1.2	27
32	Enhanced interstitial fluid drainage in the hippocampus of spontaneously hypertensive rats. Scientific Reports, 2017, 7, 744.	1.6	27
33	Vena cava and aortic smooth muscle cells express transglutaminases 1 and 4 in addition to transglutaminase 2. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H1355-H1366.	1.5	26
34	Transglutaminase 2 is secreted from smooth muscle cells by transamidation-dependent microparticle formation. Amino Acids, 2012, 42, 961-973.	1.2	26
35	Transglutaminase activity regulates atherosclerotic plaque composition at locations exposed to oscillatory shear stress. Atherosclerosis, 2012, 224, 355-362.	0.4	23
36	Mechanics of microvascular remodeling. Clinical Hemorheology and Microcirculation, 2006, 34, 35-41.	0.9	22

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37	Gene Expression and MicroRNA Expression Analysis in Small Arteries of Spontaneously Hypertensive Rats. Evidence for ER Stress. PLoS ONE, 2015, 10, e0137027.	1.1	21
38	Bloodâ€"brain and bloodâ€"cerebrospinal fluid barrier permeability in spontaneously hypertensive rats. Fluids and Barriers of the CNS, 2018, 15, 26.	2.4	21
39	Celiprolol but not losartan improves the biomechanical integrity of the aorta in a mouse model of vascular Ehlersâ€"Danlos syndrome. Cardiovascular Research, 2020, 116, 457-465.	1.8	21
40	Nur77 protects against adverse cardiac remodelling by limiting neuropeptide Y signalling in the sympathoadrenal-cardiac axis. Cardiovascular Research, 2018, 114, 1617-1628.	1.8	19
41	Endothelin-1-Induced Constriction Inhibits Nitric-Oxide-Mediated Dilation in Isolated Rat Resistance Arteries. Journal of Vascular Research, 1997, 34, 418-424.	0.6	18
42	Extravasation of Microspheres in a Rat Model of Silent Brain Infarcts. Stroke, 2019, 50, 1590-1594.	1.0	18
43	Role of transglutaminases in cuff-induced atherosclerotic lesion formation in femoral arteries of ApoE3 Leiden mice. Atherosclerosis, 2010, 213, 77-84.	0.4	17
44	Heterogeneity in Arterial Remodeling among Sublines of Spontaneously Hypertensive Rats. PLoS ONE, 2014, 9, e107998.	1.1	17
45	Calcification Locates to Transglutaminases in Advanced Human Atherosclerotic Lesions. American Journal of Pathology, 2009, 175, 1374-1379.	1.9	16
46	Thrombospondin-4 knockout in hypertension protects small-artery endothelial function but induces aortic aneurysms. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1486-H1493.	1.5	16
47	Brain solute transport is more rapid in periarterial than perivenous spaces. Scientific Reports, 2021, 11, 16085.	1.6	16
48	Vascular smooth muscle cells remodel collagen matrices by long-distance action and anisotropic interaction. Medical and Biological Engineering and Computing, 2012, 50, 701-715.	1.6	15
49	Thrombospondin-4 mediates cardiovascular remodelling in angiotensin II-induced hypertension. Cardiovascular Pathology, 2018, 35, 12-19.	0.7	15
50	Relation between active and passive biomechanics of small mesenteric arteries during remodeling. Journal of Biomechanics, 2013, 46, 1420-1426.	0.9	13
51	Microembolus clearance through angiophagy is an auxiliary mechanism preserving tissue perfusion in the rat brain. Acta Neuropathologica Communications, 2020, 8, 195.	2.4	13
52	Altered brain fluid management in a rat model of arterial hypertension. Fluids and Barriers of the CNS, 2020, 17, 41.	2.4	12
53	Smooth Muscle Contractile Plasticity in Rat Mesenteric Small Arteries: Sensitivity to Specific Vasoconstrictors, Distension and Inflammatory Cytokines. Journal of Vascular Research, 2013, 50, 249-262.	0.6	10
54	Testosterone and Î²-oestradiol prevent inward remodelling of rat small mesenteric arteries: role of NO and transglutaminase. Clinical Science, 2013, 124, 719-728.	1.8	9

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55	A Vascular Bone Collector. Circulation Research, 2008, 102, 507-509.	2.0	8
56	Optimization of Vascular Casting for Three-Dimensional Fluorescence Cryo-Imaging of Collateral Vessels in the Ischemic Rat Hindlimb. Microscopy and Microanalysis, 2017, 23, 77-87.	0.2	8
57	Sustained conduction of vasomotor responses in rat mesenteric arteries in a twoâ€compartment inÂvitro setâ€up. Acta Physiologica, 2018, 224, e13099.	1.8	8
58	Recovery of Hypoxic Regions in a Rat Model of Microembolism. Journal of Stroke and Cerebrovascular Diseases, 2021, 30, 105739.	0.7	8
59	Cerebral Artery Remodeling in Rodent Models of Subarachnoid Hemorrhage. Journal of Vascular Research, 2015, 52, 103-115.	0.6	6
60	Quantitative 3D analysis of tissue damage in a rat model of microembolization. Journal of Biomechanics, 2021, 128, 110723.	0.9	6
61	Vasomotor Effects Of ARG-Gly-ASP (RGD) Peptides Are Limited And Not Related To Endothelium-Derived Hyperpolarizing Factor-Mediated Relaxation In Rat Mesenteric Arteries. Clinical and Experimental Pharmacology and Physiology, 2001, 28, 873-876.	0.9	5
62	MBEC special issue on microcirculation â€œengineering principles of vascular networksâ€• Medical and Biological Engineering and Computing, 2008, 46, 407-9.	1.6	4
63	Decomposition cross-correlation for analysis of collagen matrix deformation by single smooth muscle cells. Medical and Biological Engineering and Computing, 2008, 46, 443-450.	1.6	2
64	Mapping Solute Clearance From the Mouse Hippocampus Using a 3D Imaging Cryomicrotome. Frontiers in Neuroscience, 2021, 15, 631325.	1.4	1
65	The Cerebral Microcirculation. Updates in Hypertension and Cardiovascular Protection, 2020, , 59-72.	0.1	1
66	Biomechanics in Small Artery Remodeling. Cardiac and Vascular Biology, 2021, , 47-68.	0.2	0
67	PRESSUREâ€•AND FLOWâ€DEPENDENT VASCULAR REMODELING IN MICE DEFICIENT FOR TISSUEâ€TYPE TRANSGLUTAMINASE. FASEB Journal, 2006, 20, A710.	0.2	0
68	Downâ€regulation of BMPâ€4 Expression in Coronary Arterial Endothelial Cells: Role of Shear Stress and the cAMP/PKA Pathway. FASEB Journal, 2008, 22, 1145.1.	0.2	0
69	The Redox State of Transglutaminase Controls Arterial Remodeling. FASEB Journal, 2011, 25, 1093.2.	0.2	0
70	Intrinsic balance of small artery active and passive diameterâ€tension relations. FASEB Journal, 2013, 27, 902.6.	0.2	0
71	IMAGING PERIVASCULAR TRANSPORT IN THE BRAIN. FASEB Journal, 2013, 27, 709.3.	0.2	0