Akos Koller

List of Publications by Year in Descending Order

117 papers	3,445 citations	35 h-index	57 g-index
119 ext. papers	3,833 ext. citations	4.3 avg, IF	5 L-index

#	Paper	IF	Citations
117	The ESC Journal Family Ethics Committee 2012-2021.. *European Heart Journal*, **2022**, 43, 1280-1282	9.5	
116	Angiotensin II type 1 receptor is involved in flow-induced vasomotor responses of isolated middle cerebral arteries: role of oxidative stress. *American Journal of Physiology - Heart and Circulatory Physiology*, **2021**, 320, H1609-H1624	5.2	1
115	Molecular Pathomechanisms of Impaired Flow-Induced Constriction of Cerebral Arteries Following Traumatic Brain Injury: A Potential Impact on Cerebral Autoregulation. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	2
114	Functional and structural adaptations of the coronary macro- and micro-vasculature to regular aerobic exercise by activation of physiological, cellular and molecular mechanisms: Esc Working Group on Coronary Pathophysiology & Microcirculation Position Paper. *Cardiovascular Research*, **2021**,	9.9	3
113	Platelet-derived extracellular vesicles may contribute to the hypercoagulable state in preeclampsia. *Journal of Reproductive Immunology*, **2021**, 148, 103380	4.2	1
112	ESC Working Group on Coronary Pathophysiology and Microcirculation position paper on 'coronary microvascular dysfunction in cardiovascular disease'. *Cardiovascular Research*, **2020**, 116, 741-755	9.9	57
111	Prostaglandin E a postulated mediator of neurovascular coupling, at low concentrations dilates whereas at higher concentrations constricts human cerebral parenchymal arterioles. *Prostaglandins and Other Lipid Mediators*, **2020**, 146, 106389	3.7	6
110	L-Arginine-Nitric Oxide-Asymmetric Dimethylarginine Pathway and the Coronary Circulation: Translation of Basic Science Results to Clinical Practice. *Frontiers in Pharmacology*, **2020**, 11, 569914	5.6	9
109	Depression and coronary heart disease: 2018 position paper of the ESC working group on coronary pathophysiology and microcirculation. *European Heart Journal*, **2020**, 41, 1687-1696	9.5	90
108	VPAC1 receptors play a dominant role in PACAP-induced vasorelaxation in female mice. *PLoS ONE*, **2019**, 14, e0211433	3.7	3
107	Effects of Long-Term Moderate Intensity Exercise on Cognitive Behaviors and Cholinergic Forebrain in the Aging Rat. *Neuroscience*, **2019**, 411, 65-75	3.9	5
106	Association Between Nailfold Capillary Density and Pulmonary and Cardiac Involvement in Medium to Longstanding Juvenile Dermatomyositis. *Arthritis Care and Research*, **2019**, 71, 492-497	4.7	12
105	Single Mild Traumatic Brain Injury Induces Persistent Disruption of the Blood-Brain Barrier, Neuroinflammation and Cognitive Decline in Hypertensive Rats. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	17
104	Hypertension Exacerbates Cerebrovascular Oxidative Stress Induced by Mild Traumatic Brain Injury: Protective Effects of the Mitochondria-Targeted Antioxidative Peptide SS-31. *Journal of Neurotrauma*, **2019**, 36, 3309-3315	5.4	12
103	Pituitary adenylate cyclase-activating polypeptide ameliorates vascular dysfunction induced by hyperglycaemia. *Diabetes and Vascular Disease Research*, **2018**, 15, 277-285	3.3	9
102	Extravascular Blood Augments Myogenic Constriction of Cerebral Arterioles: Implications for Hemorrhage-Induced Vasospasm. *Journal of the American Heart Association*, **2018**, 7,	6	6
101	Remodeling of Wall Mechanics and the Myogenic Mechanism of Rat Intramural Coronary Arterioles in Response to a Short-Term Daily Exercise Program: Role of Endothelial Factors. *Journal of Vascular Research*, **2018**, 55, 87-97	1.9	11

100	Traumatic Brain Injury Impairs Myogenic Constriction of Cerebral Arteries: Role of Mitochondria-Derived HO and TRPV4-Dependent Activation of BK Channels. *Journal of Neurotrauma*, **2018**, 35, 930-939	5.4	33
99	Hemolyzed Blood Elicits a Calcium Antagonist and High CO Reversible Constriction via Elevation of [Ca] in Isolated Cerebral Arteries. *Journal of Neurotrauma*, **2017**, 34, 529-534	5.4	3
98	Hypertension-Induced Enhanced Myogenic Constriction of Cerebral Arteries Is Preserved after Traumatic Brain Injury. *Journal of Neurotrauma*, **2017**, 34, 2315-2319	5.4	7
97	In juvenile dermatomyositis, heart rate variability is reduced, and associated with both cardiac dysfunction and markers of inflammation: a cross-sectional study median 13.5 years after symptom onset. *Rheumatology*, **2016**, 55, 535-43	3.9	10
96	Comparison of Early Versus Delayed Oral Blockers in Acute Coronary Syndromes and Effect on Outcomes. *American Journal of Cardiology*, **2016**, 117, 760-7	3	40
95	The Beta-1-Receptor Blocker Nebivolol Elicits Dilation of Cerebral Arteries by Reducing Smooth Muscle [Ca2+]i. *PLoS ONE*, **2016**, 11, e0164010	3.7	3
94	Association between comorbidities and absence of chest pain in acute coronary syndrome with in-hospital outcome. *International Journal of Cardiology*, **2016**, 217 Suppl, S37-43	3.2	16
93	Invasive versus conservative strategy in acute coronary syndromes: The paradox in women's outcomes. *International Journal of Cardiology*, **2016**, 222, 1110-1115	3.2	7
92	Aging impairs myogenic adaptation to pulsatile pressure in mouse cerebral arteries. *Journal of Cerebral Blood Flow and Metabolism*, **2015**, 35, 527-30	7.3	36
91	Assessment of coronary hemodynamics and vascular function. *Progress in Cardiovascular Diseases*, **2015**, 57, 423-30	8.5	3
90	Aging Exacerbates Pressure-Induced Mitochondrial Oxidative Stress in Mouse Cerebral Arteries. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2015**, 70, 1355-9	6.4	47
89	Pericardial fluid of cardiac patients elicits arterial constriction: role of endothelin-1. *Canadian Journal of Physiology and Pharmacology*, **2015**, 93, 779-85	2.4	6
88	Regulation of coronary blood flow in health and ischemic heart disease. *Progress in Cardiovascular Diseases*, **2015**, 57, 409-22	8.5	122
87	Elevated Levels of Asymmetric Dimethylarginine (ADMA) in the Pericardial Fluid of Cardiac Patients Correlate with Cardiac Hypertrophy. *PLoS ONE*, **2015**, 10, e0135498	3.7	10
86	Unfractionated heparin-clopidogrel combination in ST-elevation myocardial infarction not receiving reperfusion therapy. *Atherosclerosis*, **2015**, 241, 151-6	3.1	28
85	Flow-induced Constriction of Cerebral Arteries in Hypertension: a Protective Mechanism Against Stroke?. *FASEB Journal*, **2015**, 29, 832.5	0.9	
84	In Vitro Model of Brain Trauma: in Isolated Basilar Artery Hemolysed Blood-induced Constriction is Inhibited by Calcium Channel Blocker and Increased CO2. *FASEB Journal*, **2015**, 29, 832.8	0.9	
83	Resveratrol Treatment Rescues Neurovascular Coupling in Aged Mice: Role of Improved Cerebromicrovascular Endothelial Function and Down-Regulation of NADPH Oxidase. *FASEB Journal*, **2015**, 29, 787.6	0.9	

82	Obesity in aging exacerbates blood-brain barrier disruption, neuroinflammation, and oxidative stress in the mouse hippocampus: effects on expression of genes involved in beta-amyloid generation and Alzheimer's disease. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2014**, 69, 1212-26	6.4	193
81	Aging exacerbates obesity-induced cerebromicrovascular rarefaction, neurovascular uncoupling, and cognitive decline in mice. *Journals of Gerontology - Series A Biological Sciences and Medical Sciences*, **2014**, 69, 1339-52	6.4	101
80	Perspectives: Microvascular endothelial dysfunction and gender. *European Heart Journal Supplements*, **2014**, 16, A16-A19	1.5	6
79	Gender differences in case fatality rates of acute myocardial infarction in Serbia. *European Heart Journal Supplements*, **2014**, 16, A48-A55	1.5	9
78	Acute coronary syndrome in octogenarian patients: results from the international registry of acute coronary syndromes in transitional countries (ISACS-TC) registry. *European Heart Journal Supplements*, **2014**, 16, A87-A94	1.5	15
77	Management of heart failure complicating acute coronary syndromes in Montenegro and Serbia. *European Heart Journal Supplements*, **2014**, 16, A61-A66	1.5	1
76	IGF-1 deficiency impairs cerebral myogenic autoregulation in hypertensive mice. *Journal of Cerebral Blood Flow and Metabolism*, **2014**, 34, 1887-97	7.3	64
75	Hydrogen peroxide elicits constriction of skeletal muscle arterioles by activating the arachidonic acid pathway. *PLoS ONE*, **2014**, 9, e103858	3.7	2
74	IGF-1 deficiency impairs cerebral myogenic autoregulation in hypertensive mice (1079.2). *FASEB Journal*, **2014**, 28, 1079.2	0.9	
73	Aging exacerbates obesity-induced impairment of neurovascular coupling and cerebromicrovascular rarefaction: implications for the pathomechanism of vascular cognitive impairment (665.2). *FASEB Journal*, **2014**, 28, 665.2	0.9	
72	Obesity in aging exacerbates blood brain barrier disruption, neuroinflammation and oxidative stress in the mouse hippocampus: effects on expression of genes involved in beta-amyloid generation and Alzheimer□ disease (665.1). *FASEB Journal*, **2014**, 28, 665.1	0.9	0
71	Dysregulation of pressure-induced Ca2+ signaling and myogenic constriction of cerebral arteries in aged hypertensive mice (1079.3). *FASEB Journal*, **2014**, 28, 1079.3	0.9	
70	Endothelial regulation of coronary microcirculation in health and cardiometabolic diseases. *Internal and Emergency Medicine*, **2013**, 8 Suppl 1, S51-4	3.7	16
69	Age-related autoregulatory dysfunction and cerebromicrovascular injury in mice with angiotensin II-induced hypertension. *Journal of Cerebral Blood Flow and Metabolism*, **2013**, 33, 1732-42	7.3	145
68	Unexplored potentials of epigenetic mechanisms of plants and animals-theoretical considerations. *Genetics & Epigenetics*, **2013**, 5, 23-41		5
67	Aging exacerbates hypertension-induced cerebromicrovascular injury in mice: role of autoregulatory dysfunction in the development of vascular cognitive impairment. *FASEB Journal*, **2013**, 27, 1186.4	0.9	
66	In isolated vessels H2S is a less effective scavenger of exogenous superoxide than SOD. *FASEB Journal*, **2013**, 27, 900.2	0.9	
65	INCREASED PRODUCTION OF THE ARACHIDONIC ACID METABOLITE 20-HETE CONTRIBUTES TO HYPERTENSION-INDUCED CEREBROVASCULAR ALTERATIONS. *FASEB Journal*, **2013**, 27, 700.9	0.9	

64	Contribution of flow-dependent vasomotor mechanisms to the autoregulation of cerebral blood flow. *Journal of Vascular Research*, **2012**, 49, 375-89	1.9	82
63	In hypertension CYP450A metabolite 20-HETE exacerbates flow-induced arteriolar constriction and promotes cerebrovascular inflammation. *FASEB Journal*, **2012**, 26, 853.24	0.9	
62	Small skeletal muscle veins exhibit substantial myogenic response, which is mediated by hydrogen peroxide-induced activation of TP receptors. *FASEB Journal*, **2012**, 26, 858.1	0.9	
61	Perivascular blood induces substantial constrictions of isolated basilar artery, which can be reversed by high pCO2. *FASEB Journal*, **2012**, 26, 707.3	0.9	
60	Isolated human and rat cerebral arteries constrict to increases in flow: role of 20-HETE and TP receptors. *Journal of Cerebral Blood Flow and Metabolism*, **2011**, 31, 2096-105	7.3	61
59	Ischaemic heart disease in women: are there sex differences in pathophysiology and risk factors? Position paper from the working group on coronary pathophysiology and microcirculation of the European Society of Cardiology. *Cardiovascular Research*, **2011**, 90, 9-17	9.9	203
58	Liver-specific knockdown of IGF-1 decreases vascular oxidative stress resistance by impairing the Nrf2-dependent antioxidant response. *FASEB Journal*, **2011**, 25, 1093.6	0.9	
57	HEMOLYSED BLOOD-INDUCED VASOMOTOR DYSFUNTION IN ISOLATED RAT CEREBRAL ARTERIES. *FASEB Journal*, **2011**, 25, lb435	0.9	
56	Flow/shear stress-induced constriction of rat middle cerebral artery. *FASEB Journal*, **2010**, 24, 976.1	0.9	
55	Role of endothelial surface layer in mediation of flow-induced dilation of isolated arterioles. *FASEB Journal*, **2010**, 24, 975.15	0.9	
54	Aging-induced changes in angiotensin II-induced contractions and tachyphylaxis of isolated carotid arteries. *FASEB Journal*, **2010**, 24, 775.1	0.9	
53	HPLC is more sensitive to assess urinary albumin than nephelometry in acute stroke patients. *FASEB Journal*, **2009**, 23, 613.10	0.9	
52	Water extracts of cigarette smoke elicit smooth muscle dependent relaxation of rat renal arteries. *FASEB Journal*, **2009**, 23, 804.23	0.9	
51	Inhibitors of aldose reductase and sorbitol dehydrogenase mitigate hyperglycemia-induced arteriolar dysfunction. *FASEB Journal*, **2009**, 23, 594.5	0.9	
50	Correlation between acute stroke and microalbuminuria. Potential role of underlying systemic microvascular endothelial disease. *FASEB Journal*, **2009**, 23, 613.9	0.9	
49	Augmented angiotensin II-induced arteriolar constrictions in mice with type 2 diabetes mellitus - role for cyclooxygenase-2. *FASEB Journal*, **2009**, 23, 594.1	0.9	
48	Caveolae by interfering internalization of AT1 receptors regulate constrictions of isolated arterioles to Ang II. *FASEB Journal*, **2009**, 23, 767.1	0.9	
47	High Glucose Concentrations via Activating Rho-kinase Leads to Augmented and Sustained Angiotensin II-induced Arteriolar Constrictions. *FASEB Journal*, **2008**, 22, 732.11	0.9	

46	Cardiac reactive hyperemia is impaired in a rat model of hyperhomocysteinemia (HHcy). *FASEB Journal*, **2008**, 22, 1152.6	0.9	
45	Dilator NO, prostaglandins (PGs) and constrictor PGH2/thromboxane A2 mediate flow-induced dilation of venules.. *FASEB Journal*, **2008**, 22, 1141.16	0.9	
44	Asymmetric dimethylarginine (ADMA) elicits superoxide production in isolated arterioles via NAD(P)H oxidase. *FASEB Journal*, **2008**, 22, 1141.15	0.9	
43	Increased role of prostaglandin H2/thromboxane A2 (PGH2/TXA2) in mediation of flow dependent responses of gracilis muscle venules in hyperhomocysteinemia (HHcy). *FASEB Journal*, **2007**, 21, A846	0.9	1
42	High intraluminal pressure via increased release of hydrogen peroxide maintains arteriolar responsiveness to angiotensin II. *FASEB Journal*, **2007**, 21, A1248	0.9	
41	Aldose reductase inhibition reduces endothelial dysfunction and oxidative stress in skeletal muscle arterioles exposed to hyperglycemia. *FASEB Journal*, **2007**, 21, A834	0.9	
40	Multiple effects of diabetes mellitus on the vasomotor responses of human coronary arterioles. *FASEB Journal*, **2007**, 21, A1226	0.9	
39	Increased soluble guanylate cyclase (sGC) activity may compensate for the high fat diet-induced reduction in NO bioavailability of rat coronary arterioles. *FASEB Journal*, **2007**, 21, A1226	0.9	
38	High intraluminal pressure reduces tachyphylaxis to angiotensin II in isolated arterioles. *FASEB Journal*, **2006**, 20, A306	0.9	
37	Superoxide released to asymmetric dimethylarginine (ADMA) interferes with the vasomotor responses of isolated arterioles. *FASEB Journal*, **2006**, 20, A1149	0.9	
36	PECAM-1 mediates NO-dependent dilation of arterioles to high temporal gradients of shear stress. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2005**, 25, 1590-5	9.4	92
35	Nitric oxide and H2O2 contribute to reactive dilation of isolated coronary arterioles. *American Journal of Physiology - Heart and Circulatory Physiology*, **2004**, 287, H2461-7	5.2	37
34	Signaling pathways of mechanotransduction in arteriolar endothelium and smooth muscle cells in hypertension. *Microcirculation*, **2002**, 9, 277-94	2.9	71
33	Xanthine oxidase-derived reactive oxygen species convert flow-induced arteriolar dilation to constriction in hyperhomocysteinemia: possible role of peroxynitrite. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2002**, 22, 28-33	9.4	54
32	Enhanced NO-mediated dilations in skeletal muscle arterioles of chronically exercised rats. *Microvascular Research*, **2002**, 64, 491-6	3.7	21
31	Mediation of EDHF-Induced Reduction of Smooth Muscle [Ca2+]i and Arteriolar Dilation by K+ Channels, 5,6-EET, and Gap Junctions. *Microcirculation*, **2001**, 8, 265-274	2.9	16
30	Flow-induced constriction in arterioles of hyperhomocysteinemic rats is due to impaired nitric oxide and enhanced thromboxane A(2) mediation. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **2001** , 21, 233-7	9.4	32
29	Gender-specific compensation for the lack of NO in the mediation of flow-induced arteriolar dilation. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 280, H2456-61	5.2	67

28	Nitric oxide-mediated arteriolar dilation after endothelial deformation. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 280, H714-21	5.2	34
27	Role of endothelial [Ca2+]i in activation of eNOS in pressurized arterioles by agonists and wall shear stress. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 281, H606-12	5.2	37
26	Selected contribution: NO released to flow reduces myogenic tone of skeletal muscle arterioles by decreasing smooth muscle Ca(2+) sensitivity. *Journal of Applied Physiology*, **2001**, 91, 522-7; discussion 504-5	3.7	21
25	Effect of estrogen on flow-induced dilation in NO deficiency: role of prostaglandins and EDHF. *Journal of Applied Physiology*, **2001**, 91, 2561-6	3.7	51
24	EDHF mediates flow-induced dilation in skeletal muscle arterioles of female eNOS-KO mice. *American Journal of Physiology - Heart and Circulatory Physiology*, **2001**, 280, H2462-9	5.2	103
23	Reduced NO-dependent arteriolar dilation during the development of cardiomyopathy. *American Journal of Physiology - Heart and Circulatory Physiology*, **2000**, 278, H461-8	5.2	30
22	Hyperosmolality dilates rat skeletal muscle arterioles: role of endothelial K(ATP) channels and daily exercise. *Journal of Applied Physiology*, **2000**, 89, 2227-34	3.7	27
21	17beta-estradiol restores endothelial nitric oxide release to shear stress in arterioles of male hypertensive rats. *Circulation*, **2000**, 101, 94-100	16.7	71
20	Shear stress-induced release of prostaglandin H(2) in arterioles of hypertensive rats. *Hypertension*, **2000**, 35, 925-30	8.5	41
19	Flow reduces the amplitude and increases the frequency of lymphatic vasomotion: role of endothelial prostanoids. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1999**, 277, R1683-9	3.2	40
18	Development of nitric oxide and prostaglandin mediation of shear stress-induced arteriolar dilation with aging and hypertension. *Hypertension*, **1999**, 34, 1073-9	8.5	34
17	Enhanced release of prostaglandins contributes to flow-induced arteriolar dilation in eNOS knockout mice. *Circulation Research*, **1999**, 85, 288-93	15.7	159
16	Dysfunction of nitric oxide mediation in isolated rat arterioles with methionine diet-induced hyperhomocysteinemia. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **1999**, 19, 1899-904	9.4	115
15	Serotonin reuptake inhibitor, fluoxetine, dilates isolated skeletal muscle arterioles. Possible role of altered Ca2+ sensitivity. *British Journal of Pharmacology*, **1999**, 127, 740-6	8.6	35
14	Regulation of Skeletal Muscle Microcirculation by Nitric Oxide **1999**, 278-296		
13	Adaptation of flow-induced dilation of arterioles to daily exercise. *Microvascular Research*, **1998**, 56, 54-61	3.7	52
12	Estrogen preserves regulation of shear stress by nitric oxide in arterioles of female hypertensive rats. *Hypertension*, **1998**, 31, 309-14	8.5	35
11	Superoxide released to high intra-arteriolar pressure reduces nitric oxide-mediated shear stress- and agonist-induced dilations. *Circulation Research*, **1998**, 83, 960-5	15.7	117

10	Regulation of the vasomotor activity of lymph microvessels by nitric oxide and prostaglandins. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1998**, 274, R790-6	3.2	66
9	Gender difference in flow-induced dilation and regulation of shear stress: role of estrogen and nitric oxide. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1998**, 275, R1571-7	3.2	53
8	Flow-induced responses in skeletal muscle venules: modulation by nitric oxide and prostaglandins. *American Journal of Physiology - Heart and Circulatory Physiology*, **1998**, 275, H831-6	5.2	24
7	Myogenic responses of isolated lymphatics: modulation by endothelium. *Microcirculation*, **1997**, 4, 413-20	2.9	41
6	Estrogen maintains nitric oxide synthesis in arterioles of female hypertensive rats. *Hypertension*, **1997**, 29, 1351-6	8.5	30
5	Endothelin and prostaglandin H2 enhance arteriolar myogenic tone in hypertension. *Hypertension*, **1997**, 30, 1210-5	8.5	38
4	Shear Stress Dependent Regulation of Vascular Resistance in Health and Disease: Role of Endothelium. *Endothelium: Journal of Endothelial Cell Research*, **1996**, 4, 247-272		30
3	Flow-dependent dilation and myogenic constriction interact to establish the resistance of skeletal muscle arterioles. *Microcirculation*, **1995**, 2, 289-95	2.9	48
2	Shear stress-induced dilation is attenuated in skeletal muscle arterioles of hypertensive rats. *Hypertension*, **1995**, 25, 758-63	8.5	26
1	Exercise training augments flow-dependent dilation in rat skeletal muscle arterioles. Role of endothelial nitric oxide and prostaglandins. *Circulation Research*, **1995**, 76, 544-50	15.7	177