Akos Koller

List of Publications by Year
in descending order

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118	4,358	94269	110170
papers	citations	37 h-index	64 g-index

119	119	119	4751
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	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, 1212-1226.	1.7	250
2	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.	1.8	242
3	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.	1.0	203
4	Exercise Training Augments Flow-Dependent Dilation in Rat Skeletal Muscle Arterioles. Circulation Research, 1995, 76, 544-550.	2.0	203
5	Age-Related Autoregulatory Dysfunction and Cerebromicrovascular Injury in Mice with Angiotensin II-induced Hypertension. Journal of Cerebral Blood Flow and Metabolism, 2013, 33, 1732-1742.	2.4	183
6	Regulation of Coronary Blood Flow in Health and Ischemic Heart Disease. Progress in Cardiovascular Diseases, 2015, 57, 409-422.	1.6	178
7	Enhanced Release of Prostaglandins Contributes to Flow-Induced Arteriolar Dilation in eNOS Knockout Mice. Circulation Research, 1999, 85, 288-293.	2.0	164
8	ESC Working Group on Coronary Pathophysiology and Microcirculation position paper on â€˜coronary microvascular dysfunction in cardiovascular diseaseâ€™. Cardiovascular Research, 2020, 116, 741-755.	1.8	147
9	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, 1339-1352.	1.7	146
10	Dysfunction of Nitric Oxide Mediation in Isolated Rat Arterioles With Methionine Dietâ€“Induced Hyperhomocysteinemia. Arteriosclerosis, Thrombosis, and Vascular Biology, 1999, 19, 1899-1904.	1.1	127
11	Superoxide Released to High Intra-arteriolar Pressure Reduces Nitric Oxideâ€“Mediated Shear Stressâ€“ and Agonist-Induced Dilations. Circulation Research, 1998, 83, 960-965.	2.0	124
12	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-H2469.	1.5	112
13	PECAM-1 Mediates NO-Dependent Dilation of Arterioles to High Temporal Gradients of Shear Stress. Arteriosclerosis, Thrombosis, and Vascular Biology, 2005, 25, 1590-1595.	1.1	105
14	Contribution of Flow-Dependent Vasomotor Mechanisms to the Autoregulation of Cerebral Blood Flow. Journal of Vascular Research, 2012, 49, 375-389.	0.6	96
15	IGF-1 Deficiency Impairs Cerebral Myogenic Autoregulation in Hypertensive Mice. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, 1887-1897.	2.4	90
16	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-R796.	0.9	84
17	Signaling Pathways of Mechanotransduction in Arteriolar Endothelium and Smooth Muscle Cells in Hypertension. Microcirculation, 2002, 9, 277-294.	1.0	78
18	17Î²-Estradiol Restores Endothelial Nitric Oxide Release to Shear Stress in Arterioles of Male Hypertensive Rats. Circulation, 2000, 101, 94-100.	1.6	76

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19	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, 2096-2105.	2.4	71
20	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-H2461.	1.5	70
21	Xanthine Oxidaseâ€"Derived Reactive Oxygen Species Convert Flow-Induced Arteriolar Dilation to Constriction in Hyperhomocysteinemia. Arteriosclerosis, Thrombosis, and Vascular Biology, 2002, 22, 28-33.	1.1	61
22	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-R1577.	0.9	59
23	Aging Exacerbates Pressure-Induced Mitochondrial Oxidative Stress in Mouse Cerebral Arteries: Figure 1.. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2015, 70, 1355-1359.	1.7	59
24	Comparison of Early Versus Delayed Oral Î² Blockers in Acute Coronary Syndromes and Effect on Outcomes. American Journal of Cardiology, 2016, 117, 760-767.	0.7	57
25	Adaptation of Flow-Induced Dilation of Arterioles to Daily Exercise. Microvascular Research, 1998, 56, 54-61.	1.1	55
26	Effect of estrogen on flow-induced dilation in NO deficiency: role of prostaglandins and EDHF. Journal of Applied Physiology, 2001, 91, 2561-2566.	1.2	55
27	Aging Impairs Myogenic Adaptation to Pulsatile Pressure in Mouse Cerebral Arteries. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 527-530.	2.4	54
28	Flow-Dependent Dilation and Myogenic Constriction Interact to Establish the Resistance of Skeletal Muscle Arterioles. Microcirculation, 1995, 2, 289-295.	1.0	51
29	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-H612.	1.5	51
30	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-R1689.	0.9	49
31	Endothelin and Prostaglandin H 2 Enhance Arteriolar Myogenic Tone in Hypertension. Hypertension, 1997, 30, 1210-1215.	1.3	49
32	Shear Stressâ€"Induced Release of Prostaglandin H ₂ in Arterioles of Hypertensive Rats. Hypertension, 2000, 35, 925-930.	1.3	47
33	Myogenic Responses of Isolated Lymphatics: Modulation by Endothelium. Microcirculation, 1997, 4, 413-420.	1.0	44
34	Traumatic Brain Injury Impairs Myogenic Constriction of Cerebral Arteries: Role of Mitochondria-Derived H₂O₂ and TRPV4-Dependent Activation of BK_{ca} Channels. Journal of Neurotrauma, 2018, 35, 930-939.	1.7	42
35	Serotonin reuptake inhibitor, fluoxetine, dilates isolated skeletal muscle arterioles. Possible role of altered Ca2+ sensitivity. British Journal of Pharmacology, 1999, 127, 740-746.	2.7	41
36	Nitric oxide and H2O2 contribute to reactive dilation of isolated coronary arterioles. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H2461-H2467.	1.5	41

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37	Estrogen Preserves Regulation of Shear Stress by Nitric Oxide in Arterioles of Female Hypertensive Rats. Hypertension, 1998, 31, 309-314.	1.3	39
38	Estrogen Maintains Nitric Oxide Synthesis in Arterioles of Female Hypertensive Rats. Hypertension, 1997, 29, 1351-1356.	1.3	39
39	Nitric oxide-mediated arteriolar dilation after endothelial deformation. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 280, H714-H721.	1.5	38
40	Reduced NO-dependent arteriolar dilation during the development of cardiomyopathy. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H461-H468.	1.5	37
41	Development of Nitric Oxide and Prostaglandin Mediation of Shear Stressâ€“Induced Arteriolar Dilation With Aging and Hypertension. Hypertension, 1999, 34, 1073-1079.	1.3	35
42	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, 233-237.	1.1	35
43	Unfractionated heparinâ€“clopidogrel combination in ST-elevation myocardial infarction not receiving reperfusion therapy. Atherosclerosis, 2015, 241, 151-156.	0.4	35
44	Flow-induced responses in skeletal muscle venules: modulation by nitric oxide and prostaglandins. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 275, H831-H836.	1.5	34
45	Shear Stressâ€“Induced Dilation Is Attenuated in Skeletal Muscle Arterioles of Hypertensive Rats. Hypertension, 1995, 25, 758-763.	1.3	34
46	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.	1.6	33
47	Shear Stress Dependent Regulation of Vascular Resistance in Health and Disease: Role of Endothelium. Endothelium: Journal of Endothelial Cell Research, 1996, 4, 247-272.	1.7	31
48	Hyperosmolality dilates rat skeletal muscle arterioles: role of endothelial K_{ATP} channels and daily exercise. Journal of Applied Physiology, 2000, 89, 2227-2234.	1.2	28
49	Endothelial regulation of coronary microcirculation in health and cardiometabolic diseases. Internal and Emergency Medicine, 2013, 8, 51-54.	1.0	24
50	Selected Contribution: NO released to flow reduces myogenic tone of skeletal muscle arterioles by decreasing smooth muscle Ca²⁺sensitivity. Journal of Applied Physiology, 2001, 91, 522-527.	1.2	22
51	Enhanced NO-Mediated Dilations in Skeletal Muscle Arterioles of Chronically Exercised Rats. Microvascular Research, 2002, 64, 491-496.	1.1	22
52	Association Between Nailfold Capillary Density and Pulmonary and Cardiac Involvement in Medium to Longstanding Juvenile Dermatomyositis. Arthritis Care and Research, 2019, 71, 492-497.	1.5	21
53	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, 3223.	1.8	21
54	Association between comorbidities and absence of chest pain in acute coronary syndrome with in-hospital outcome. International Journal of Cardiology, 2016, 217, S37-S43.	0.8	20

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55	Functional and structural adaptations of the coronary macro- and microvasculature to regular aerobic exercise by activation of physiological, cellular, and molecular mechanisms: ESC Working Group on Coronary Pathophysiology and Microcirculation position paper. Cardiovascular Research, 2022, 118, 357-371.	1.8	19
56	Mediation of EDHFâ€Induced Reduction of Smooth Muscle [Ca²⁺]_i and Arteriolar Dilation by K⁺ Channels, 5,6â€EET, and Gap Junctions. Microcirculation, 2001, 8, 265-274.	1.0	17
57	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.	0.6	16
58	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.	0.0	15
59	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.	1.7	15
60	Elevated Levels of Asymmetric Dimethylarginine (ADMA) in the Pericardial Fluid of Cardiac Patients Correlate with Cardiac Hypertrophy. PLoS ONE, 2015, 10, e0135498.	1.1	14
61	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, 2015, 55, kev376.	0.9	13
62	Effects of Long-Term Moderate Intensity Exercise on Cognitive Behaviors and Cholinergic Forebrain in the Aging Rat. Neuroscience, 2019, 411, 65-75.	1.1	12
63	Prostaglandin E2, 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.	1.0	12
64	Gender differences in case fatality rates of acute myocardial infarction in Serbia. European Heart Journal Supplements, 2014, 16, A48-A55.	0.0	11
65	Perspectives: Microvascular endothelial dysfunction and gender. European Heart Journal Supplements, 2014, 16, A16-A19.	0.0	10
66	Pituitary adenylate cyclase-activating polypeptide ameliorates vascular dysfunction induced by hyperglycaemia. Diabetes and Vascular Disease Research, 2018, 15, 277-285.	0.9	10
67	Hypertension-Induced Enhanced Myogenic Constriction of Cerebral Arteries Is Preserved after Traumatic Brain Injury. Journal of Neurotrauma, 2017, 34, 2315-2319.	1.7	9
68	VPAC1 receptors play a dominant role in PACAP-induced vasorelaxation in female mice. PLoS ONE, 2019, 14, e0211433.	1.1	9
69	Invasive versus conservative strategy in acute coronary syndromes: The paradox in women's outcomes. International Journal of Cardiology, 2016, 222, 1110-1115.	0.8	8
70	Unexplored Potentials of Epigenetic Mechanisms of Plants and Animalsâ€“Theoretical Considerations. Genetics & Epigenetics, 2013, 5, GEG.S11752.	2.5	7
71	Pericardial fluid of cardiac patients elicits arterial constriction: role of endothelin-1. Canadian Journal of Physiology and Pharmacology, 2015, 93, 779-785.	0.7	6
72	Extravascular Blood Augments Myogenic Constriction of Cerebral Arterioles: Implications for Hemorrhageâ€Induced Vasospasm. Journal of the American Heart Association, 2018, 7, .	1.6	6

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73	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.	1.5	6
74	Platelet-derived extracellular vesicles may contribute to the hypercoagulable state in preeclampsia. Journal of Reproductive Immunology, 2021, 148, 103380.	0.8	6
75	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, 6624.	1.8	5
76	The Beta-1-Receptor Blocker Nebivolol Elicits Dilation of Cerebral Arteries by Reducing Smooth Muscle [Ca2+]i. PLoS ONE, 2016, 11, e0164010.	1.1	5
77	Assessment of Coronary Hemodynamics and Vascular Function. Progress in Cardiovascular Diseases, 2015, 57, 423-430.	1.6	4
78	Hemolyzed Blood Elicits a Calcium Antagonist and High CO₂Reversible Constriction via Elevation of [Ca²⁺]_iin Isolated Cerebral Arteries. Journal of Neurotrauma, 2017, 34, 529-534.	1.7	3
79	Hydrogen Peroxide Elicits Constriction of Skeletal Muscle Arterioles by Activating the Arachidonic Acid Pathway. PLoS ONE, 2014, 9, e103858.	1.1	3
80	Management of heart failure complicating acute coronary syndromes in Montenegro and Serbia. European Heart Journal Supplements, 2014, 16, A61-A66.	0.0	1
81	Increased role of prostaglandin H 2 /thromboxane A 2 (PGH 2 /TXA 2) in mediation of flow dependent responses of gracilis muscle venules in hyperhomocysteinemia (HHcy). FASEB Journal, 2007, 21, A846.	0.2	1
82	Obesity in aging exacerbates blood brain barrier disruption, neuroinflammation and oxidative stress in the mouse hippocampus: effects on expression of genes involved in betaâ€amyloid generation and Alzheimerâ€™s disease (665.1). FASEB Journal, 2014, 28, 665.1.	0.2	1
83	OUP accepted manuscript. European Heart Journal, 2022, 43, 1280-1282.	1.0	0
84	High intraluminal pressure reduces tachyphylaxis to angiotensin II in isolated arterioles. FASEB Journal, 2006, 20, A306.	0.2	0
85	Superoxide released to asymmetric dimethylarginine (ADMA) interferes with the vasomotor responses of isolated arterioles. FASEB Journal, 2006, 20, A1149.	0.2	0
86	High intraluminal pressure via increased release of hydrogen peroxide maintains arteriolar responsiveness to angiotensin II. FASEB Journal, 2007, 21, A1248.	0.2	0
87	Aldose reductase inhibition reduces endothelial dysfunction and oxidative stress in skeletal muscle arterioles exposed to hyperglycemia. FASEB Journal, 2007, 21, A834.	0.2	0
88	Multiple effects of diabetes mellitus on the vasomotor responses of human coronary arterioles. FASEB Journal, 2007, 21, A1226.	0.2	0
89	Increased soluble guanylate cyclase (sGC) activity may compensate for the high fat dietâ€induced reduction in NO bioavailability of rat coronary arterioles. FASEB Journal, 2007, 21, A1226.	0.2	0
90	High Glucose Concentrations via Activating Rhoâ€kinase Leads to Augmented and Sustained Angiotensin Iiâ€induced Arteriolar Constrictions. FASEB Journal, 2008, 22, 732.11.	0.2	0

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91	Cardiac reactive hyperemia is impaired in a rat model of hyperhomocysteinemia (HHcy). FASEB Journal, 2008, 22, 1152.6.	0.2	0
92	Dilator NO, prostaglandins (PGs) and constrictor PGH2/thromboxane A2 mediate flowâ€induced dilation of venules.. FASEB Journal, 2008, 22, 1141.16.	0.2	0
93	Asymmetric dimethylarginine (ADMA) elicits superoxide production in isolated arterioles via NAD(P)H oxidase. FASEB Journal, 2008, 22, 1141.15.	0.2	0
94	HPLC is more sensitive to assess urinary albumin than nephelometry in acute stroke patients. FASEB Journal, 2009, 23, 613.10.	0.2	0
95	Water extracts of cigarette smoke elicit smooth muscle dependent relaxation of rat renal arteries. FASEB Journal, 2009, 23, 804.23.	0.2	0
96	Inhibitors of aldose reductase and sorbitol dehydrogenase mitigate hyperglycemiaâ€induced arteriolar dysfunction. FASEB Journal, 2009, 23, 594.5.	0.2	0
97	Correlation between acute stroke and microalbuminuria. Potential role of underlying systemic microvascular endothelial disease. FASEB Journal, 2009, 23, 613.9.	0.2	0
98	Augmented angiotensin IIâ€induced arteriolar constrictions in mice with type 2 diabetes mellitus â€role for cyclooxygenaseâ€2. FASEB Journal, 2009, 23, 594.1.	0.2	0
99	Caveolae by interfering internalization of AT1 receptors regulate constrictions of isolated arterioles to Ang II. FASEB Journal, 2009, 23, 767.1.	0.2	0
100	Flow/shear stressâ€induced constriction of rat middle cerebral artery. FASEB Journal, 2010, 24, 976.1.	0.2	0
101	Role of endothelial surface layer in mediation of flowâ€induced dilation of isolated arterioles. FASEB Journal, 2010, 24, 975.15.	0.2	0
102	Agingâ€induced changes in angiotensin IIâ€induced contractions and tachyphylaxis of isolated carotid arteries. FASEB Journal, 2010, 24, 775.1.	0.2	0
103	Liverâ€specific knockdown of IGFâ€1 decreases vascular oxidative stress resistance by impairing the Nrf2â€dependent antioxidant response. FASEB Journal, 2011, 25, 1093.6.	0.2	0
104	HEMOLYSED BLOODâ€INDUCED VASOMOTOR DYSFUNTION IN ISOLATED RAT CEREBRAL ARTERIES. FASEB Journal, 2011, 25, lb435.	0.2	0
105	In hypertension CYP450A metabolite 20â€HETE exacerbates flowâ€induced arteriolar constriction and promotes cerebrovascular inflammation. FASEB Journal, 2012, 26, 853.24.	0.2	0
106	Small skeletal muscle veins exhibit substantial myogenic response, which is mediated by hydrogen peroxideâ€induced activation of TP receptors. FASEB Journal, 2012, 26, 858.1.	0.2	0
107	Perivascular blood induces substantial constrictions of isolated basilar artery, which can be reversed by high pCO 2. FASEB Journal, 2012, 26, 707.3.	0.2	0
108	Aging exacerbates hypertensionâ€induced cerebromicrovascular injury in mice: role of autoregulatory dysfunction in the development of vascular cognitive impairment. FASEB Journal, 2013, 27, 1186.4.	0.2	0

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109	In isolated vessels H2S is a less effective scavenger of exogenous superoxide than SOD. FASEB Journal, 2013, 27, 900.2.	0.2	0
110	INCREASED PRODUCTION OF THE ARACHIDONIC ACID METABOLITE 20â€HETE CONTRIBUTES TO HYPERTENSIONâ€INDUCED CEREBROVASCULAR ALTERATIONS. FASEB Journal, 2013, 27, 700.9.	0.2	0
111	Regulation of Skeletal Muscle Microcirculation by Nitric Oxide. , 1999, , 278-296.		0
112	IGFâ€1 deficiency impairs cerebral myogenic autoregulation in hypertensive mice (1079.2). FASEB Journal, 2014, 28, 1079.2.	0.2	0
113	Aging exacerbates obesityâ€induced impairment of neurovascular coupling and cerebromicrovascular rarefaction: implications for the pathomechanism of vascular cognitive impairment (665.2). FASEB Journal, 2014, 28, 665.2.	0.2	0
114	Dysregulation of pressureâ€induced Ca 2+ signaling and myogenic constriction of cerebral arteries in aged hypertensive mice (1079.3). FASEB Journal, 2014, 28, 1079.3.	0.2	0
115	Flowâ€induced Constriction of Cerebral Arteries in Hypertension: a Protective Mechanism Against Stroke?. FASEB Journal, 2015, 29, 832.5.	0.2	0
116	In Vitro Model of Brain Trauma: in Isolated Basilar Artery Hemolysed Bloodâ€induced Constriction is Inhibited by Calcium Channel Blocker and Increased CO ₂. FASEB Journal, 2015, 29, 832.8.	0.2	0
117	Resveratrol Treatment Rescues Neurovascular Coupling in Aged Mice: Role of Improved Cerebromicrovascular Endothelial Function and Downâ€Regulation of NADPH Oxidase. FASEB Journal, 2015, 29, 787.6.	0.2	0
118	Frontiers of CardioVascular Biomedicine 2022 Budapest is on in person! The excellent program proves that scientists won against Covid-19. Cardiovascular Research, 2022, , .	1.8	0