William M Chilian

List of Publications by Year
in descending order

104 papers	4,776 citations	109321 35 h-index	95266 68 g-index
107 all docs	107 docs citations	107 times ranked	5402 citing authors

#	Article	IF	Citations
1	Mechanism of the switch from NO to H2O2 in endothelium-dependent vasodilation in diabetes. Basic Research in Cardiology, 2022, 117, 2.	5.9	11
2	Mitochondrial DNA integrity and function are critical for endothelium-dependent vasodilation in rats with metabolic syndrome. Basic Research in Cardiology, 2022, 117, 3.	5.9	12
3	The essential role for endothelial cell sprouting in coronary collateral growth. Journal of Molecular and Cellular Cardiology, 2022, 165, 158-171.	1.9	5
4	Pyridine nucleotide redox potential in coronary smooth muscle couples myocardial blood flow to cardiac metabolism. Nature Communications, 2022, 13, 2051.	12.8	5
5	The Vascular Basis of Takotsubo Syndrome. FASEB Journal, 2022, 36, .	0.5	0
6	Endothelial Cell Sprouting in Coronary Collateral Growth. FASEB Journal, 2022, 36, .	0.5	0
7	The Regulatory Role of miRâ€21 in Coronary Microcirculation. FASEB Journal, 2022, 36, .	0.5	1
8	Myocardial Blood Flow Control by Oxygen Sensing Vascular KvÎ² Proteins. Circulation Research, 2021, 128, 738-751.	4.5	11
9	Exosomal microRNAs in the development of essential hypertension and its potential as biomarkers. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 320, H1486-H1497.	3.2	17
10	The Diabetic Coronary Microcirculation is Regulated by MicroRNAâ€21. FASEB Journal, 2021, 35, .	0.5	0
11	Cardiomyocyte TRPV4 deletion preserves cardiac function following pressure overloadâ€induced pathological hypertrophy independent of cardiac fibrosis. FASEB Journal, 2021, 35, .	0.5	0
12	Intracellular and exosomal microRNAome profiling of human vascular smooth muscle cells during replicative senescence. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 321, H770-H783.	3.2	11
13	MicroRNA regulation of vascular smooth muscle cells and its significance in cardiovascular diseases. Canadian Journal of Physiology and Pharmacology, 2021, 99, 827-838.	1.4	5
14	Reperfusion mediates heme impairment with increased protein cysteine sulfonation of mitochondrial complex III in the post-ischemic heart. Journal of Molecular and Cellular Cardiology, 2021, 161, 23-38.	1.9	5
15	The role of MSC derived exosomes on cardiac microvascular dysfunction. International Journal of Cardiology, 2021, 344, 36-37.	1.7	2
16	Ischemic Heart Disease Pathophysiology Paradigms Overview: From Plaque Activation to Microvascular Dysfunction. International Journal of Molecular Sciences, 2020, 21, 8118.	4.1	148
17	Step by Step. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, 498-499.	2.4	0
18	Intravital Microscopy of the Beating Murine Heart to Understand Cardiac Leukocyte Dynamics. Frontiers in Immunology, 2020, 11, 92.	4.8	11

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19	TRPV4 deletion protects heart from myocardial infarction-induced adverse remodeling via modulation of cardiac fibroblast differentiation. Basic Research in Cardiology, 2020, 115, 14.	5.9	63
20	Experimental animal models of coronary microvascular dysfunction. Cardiovascular Research, 2020, 116, 756-770.	3.8	43
21	Myocardial ischemia: From disease to syndrome. International Journal of Cardiology, 2020, 314, 32-35.	1.7	19
22	Role for NADHâ€sensitive Kv channels in the myocardialâ€vascular signaling axis.. FASEB Journal, 2020, 34, 1-1.	0.5	0
23	Exosomes derived from induced vascular progenitor cells promote angiogenesis in vitro and in an in vivo rat hindlimb ischemia model. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 317, H765-H776.	3.2	35
24	Knowns and unknowns of coronary artery development and anomalies. International Journal of Cardiology, 2019, 281, 40-41.	1.7	0
25	The coronary circulation in acute myocardial ischaemia/reperfusion injury: a target for cardioprotection. Cardiovascular Research, 2019, 115, 1143-1155.	3.8	151
26	Cardioprotection during ischemia by coronary collateral growth. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H1-H9.	3.2	30
27	The Role of Kv1.2 Channels in Coronary Metabolic Dilation. FASEB Journal, 2019, 33, 689.4.	0.5	0
28	Doxorubicinâ€induced cardiomyopathy: Prevention and treatment by a coronary specific vasodilator. FASEB Journal, 2019, 33, 685.14.	0.5	1
29	Endothelial TRPV4 channel deletion promotes tumor growth and metastasis. FASEB Journal, 2019, 33, 517.4.	0.5	0
30	A Correlative, Threeâ€dimensional Approach to Studying Coronary Collateral Growth Using Lineage Tracing, Microâ€computed Tomography and Multiphoton Imaging in a Mouse Model of Repetitive Ischemia. FASEB Journal, 2019, 33, 517.6.	0.5	0
31	Deletion of endothelial TRPV4 protects myocardium against pressure overloadâ€induced hypertrophy. FASEB Journal, 2019, 33, 517.3.	0.5	0
32	Role of SDF-1:CXCR4 in Impaired Post-Myocardial Infarction Cardiac Repair in Diabetes. Stem Cells Translational Medicine, 2018, 7, 115-124.	3.3	33
33	Epigenetic regulation in diabetes-associated oxidative stress and myocardial dysfunction. International Journal of Cardiology, 2018, 268, 193-194.	1.7	1
34	Implications for Growth Differentiation Factor â€“ 11 in Cardiovascular Disease and Metabolic Syndrome. FASEB Journal, 2018, 32, lb311.	0.5	0
35	Impaired Coronary Collateral Growth in a Mouse Model of Diabetes. FASEB Journal, 2018, 32, lb280.	0.5	0
36	Novel nonâ€canonical regulation of soluble VEGF/VEGFR2 signaling by mechanosensitive ion channel TRPV4 in endothelial cells. FASEB Journal, 2018, 32, 703.2.	0.5	0

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37	Vascular precursor cells in tissue injury repair. Translational Research, 2017, 184, 77-100.	5.0	30
38	The JCR:LA-cp rat: a novel rodent model of cystic medial necrosis. American Journal of Physiology - Heart and Circulatory Physiology, 2017, 312, H541-H545.	3.2	1
39	Augmentation of Muscle Blood Flow by Ultrasound Cavitation Is Mediated by ATP and Purinergic Signaling. Circulation, 2017, 135, 1240-1252.	1.6	82
40	Kv1.3 channels facilitate the connection between metabolism and blood flow in the heart. Microcirculation, 2017, 24, e12334.	1.8	21
41	Impairment of pH gradient and membrane potential mediates redox dysfunction in the mitochondria of the post-ischemic heart. Basic Research in Cardiology, 2017, 112, 36.	5.9	31
42	Ischemia and No Obstructive Coronary Artery Disease (INOCA). Circulation, 2017, 135, 1075-1092.	1.6	527
43	Alignment of inducible vascular progenitor cells on a micro-bundle scaffold improves cardiac repair following myocardial infarction. Basic Research in Cardiology, 2017, 112, 41.	5.9	14
44	Impaired coronary metabolic dilation in the metabolic syndrome is linked to mitochondrial dysfunction and mitochondrial DNA damage. Basic Research in Cardiology, 2016, 111, 29.	5.9	22
45	Early upregulation of myocardial CXCR4 expression is critical for dimethyloxalylglycine-induced cardiac improvement in acute myocardial infarction. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H20-H28.	3.2	25
46	State-of-the-Art Methods for Evaluation of Angiogenesis and Tissue Vascularization. Circulation Research, 2015, 116, e99-132.	4.5	113
47	Novel thiazolidinedione mitoNEET ligand-1 acutely improves cardiac stem cell survival under oxidative stress. Basic Research in Cardiology, 2015, 110, 19.	5.9	19
48	Overexpressing superoxide dismutase 2 induces a supernormal cardiac function by enhancing redox-dependent mitochondrial function and metabolic dilation. Journal of Molecular and Cellular Cardiology, 2015, 88, 14-28.	1.9	34
49	Requisite Role of Kv1.5 Channels in Coronary Metabolic Dilation. Circulation Research, 2015, 117, 612-621.	4.5	78
50	Dewetting based fabrication of fibrous micro-scaffolds as potential injectable cell carriers. Materials Science and Engineering C, 2015, 48, 663-672.	7.3	6
51	TRPV4 Channel Deletion Improves Cardiac Remodeling Following Myocardial Injury via Modulation of MRTFâ€A Pathway. FASEB Journal, 2015, 29, 845.6.	0.5	0
52	Connecting the dotsâ€"Establishing causality between chronic stress, depression, and cardiovascular disease. Journal of Applied Physiology, 2014, 117, 957-958.	2.5	2
53	A Brief Etymology of the Collateral Circulation. Arteriosclerosis, Thrombosis, and Vascular Biology, 2014, 34, 1854-1859.	2.4	129
54	Mitochondrial Oxidative Stress Corrupts Coronary Collateral Growth by Activating Adenosine Monophosphate Activated Kinase-Î± Signaling. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 1911-1919.	2.4	22

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55	Knockout of type VI collagen preserves mitochondrial structure and function following myocardial infarction. FASEB Journal, 2013, 27, lb674.	0.5	2
56	TRPV4 Channel Activation Inhibits Tumor Endothelial Cell Proliferation and Migration Via Modulation of ERK1/2 pathway. FASEB Journal, 2013, 27, 685.11.	0.5	0
57	Absence of TRPV4 Channels Improves Cardiac Function and Remodeling Following Myocardial Infarction and Transverse Aortic Constriction. FASEB Journal, 2013, 27, .	0.5	0
58	Resolution of Mitochondrial Oxidative Stress Rescues Coronary Collateral Growth in Zucker Obese Fatty Rats. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 325-334.	2.4	57
59	Coronary collateral growthâ€"Back to the future. Journal of Molecular and Cellular Cardiology, 2012, 52, 905-911.	1.9	51
60	Induction of Vascular Progenitor Cells From Endothelial Cells Stimulates Coronary Collateral Growth. Circulation Research, 2012, 110, 241-252.	4.5	43
61	Mechanosensitive TRPV4 channels mediate cardiac fibroblast differentitation to myofibroblasts. FASEB Journal, 2012, 26, 1059.1.	0.5	0
62	Knockout of type VI collagen improves cardiac function and remodeling following myocardial infarction. FASEB Journal, 2012, 26, 1060.13.	0.5	0
63	Gender differences in cardiac function of Kv1.5â[^]'/â[^]' mice during aging. FASEB Journal, 2012, 26, 860.13.	0.5	0
64	Mitochondrial DNA Fragmentation Impairs Endothelial Function In Zucker Lean Rats. FASEB Journal, 2012, 26, 1137.11.	0.5	0
65	The Importance of Polycystin 1 (PC1) in Endothelial Mitochondrial Bioenergetics. FASEB Journal, 2012, 26, 887.10.	0.5	0
66	ABSENCE OF TYPE VI COLLAGEN REDUCES ABERRANT REMODELING AND PRESERVES CARDIAC FUNCTION AFTER MYOCARDIAL INFARCTION. FASEB Journal, 2011, 25, 1032.6.	0.5	0
67	Corruption of coronary collateral growth in metabolic syndrome: Role of oxidative stress. World Journal of Cardiology, 2010, 2, 421.	1.5	27
68	Mitochondrial Complex I Deficiency is One of the Major Causes of Mitochondrial Oxidative Stess in Zucker Obese Fatty Rat. FASEB Journal, 2010, 24, 1018.4.	0.5	0
69	Stimulation of Coronary Collateral Growth by Granulocyte Stimulating Factor. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 1817-1822.	2.4	25
70	Amplification of Coronary Arteriogenic Capacity of Multipotent Stromal Cells by Epidermal Growth Factor. Arteriosclerosis, Thrombosis, and Vascular Biology, 2009, 29, 802-808.	2.4	25
71	Redox-Dependent Mechanisms in Coronary Collateral Growth: The â€œRedox Windowâ€•Hypothesis. Antioxidants and Redox Signaling, 2009, 11, 1961-1974.	5.4	66
72	A new method for the detection of mitochondrial oxidative stress. FASEB Journal, 2009, 23, LB78.	0.5	0

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73	Cardiac Phenotypic Differences in Rat Models of the Metabolic Syndrome. FASEB Journal, 2009, 23, .	0.5	0
74	Role of NAD(P)H Oxidaseâ€•and Mitochondriaâ€derived ROS in Coronary Collateral Growth. FASEB Journal, 2008, 22, 524.5.	0.5	0
75	Tumor Necrosis Factor-Î± Induces Endothelial Dysfunction in Lepr ^{db} Mice. Circulation, 2007, 115, 245-254.	1.6	221
76	Optimal reactive oxygen species concentration and p38 MAP kinase are required for coronary collateral growth. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2729-H2736.	3.2	62
77	Restoration of coronary endothelial function in obese Zucker rats by a low-carbohydrate diet. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H2093-H2099.	3.2	31
78	H₂O₂ activates redox- and 4-aminopyridine-sensitive K_v channels in coronary vascular smooth muscle. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H1404-H1411.	3.2	79
79	Restoration of coronary collateral growth in the Zucker obese rat:. Basic Research in Cardiology, 2007, 102, 217-223.	5.9	44
80	TNF-Î± Contributes to Endothelial Dysfunction in Ischemia/Reperfusion Injury. Arteriosclerosis, Thrombosis, and Vascular Biology, 2006, 26, 475-480.	2.4	157
81	H2O2-induced redox-sensitive coronary vasodilation is mediated by 4-aminopyridine-sensitive K+ channels. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H2473-H2482.	3.2	89
82	Hydrogen Peroxide. Arteriosclerosis, Thrombosis, and Vascular Biology, 2006, 26, 2614-2621.	2.4	164
83	Tumor Necrosis Factor-Î± Induces Endothelial Dysfunction in the Prediabetic Metabolic Syndrome. Circulation Research, 2006, 99, 69-77.	4.5	302
84	Cardiac myocytes control release of endothelin-1 in coronary vasculature. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H2088-H2092.	3.2	24
85	Angiostatin is negatively associated with coronary collateral growth in patients with coronary artery disease. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 288, H2042-H2046.	3.2	37
86	Role of Focal Adhesion Kinase in Flow-Induced Dilation of Coronary Arterioles. Arteriosclerosis, Thrombosis, and Vascular Biology, 2005, 25, 2548-2553.	2.4	45
87	Autologous vascular smooth muscle cell-based myocardial gene therapy to induce coronary collateral growth. American Journal of Physiology - Heart and Circulatory Physiology, 2004, 287, H488-H493.	3.2	24
88	Angiostatin Inhibits Coronary Angiogenesis During Impaired Production of Nitric Oxide. Circulation, 2002, 105, 2185-2191.	1.6	147
89	Metabolic regulation of coronary vascular tone: role of endothelin-1. American Journal of Physiology - Heart and Circulatory Physiology, 2002, 283, H1915-H1921.	3.2	65
90	Nitric oxide limits coronary vasoconstriction by a shear stress-dependent mechanism. American Journal of Physiology - Heart and Circulatory Physiology, 2001, 281, H796-H803.	3.2	39

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91	Regulation of the coronary vasomotor tone: What we know and where we need to go. Journal of Nuclear Cardiology, 2001, 8, 599-605.	2.1	13
92	Brief commentary on coronary wave-intensity analysis. Journal of Applied Physiology, 2000, 89, 1633-1635.	2.5	9
93	Nitric oxide exerts feedback inhibition on EDHF-induced coronary arteriolar dilation in vivo. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H459-H465.	3.2	164
94	Resistance to myocardial ischemia in five rat strains: is there a genetic component of cardioprotection?. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H1395-H1400.	3.2	54
95	Adenosine preconditions against endothelin-induced constriction of coronary arterioles. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H2593-H2597.	3.2	17
96	Ischemia-Induced Coronary Collateral Growth Is Dependent on Vascular Endothelial Growth Factor and Nitric Oxide. Circulation, 2000, 102, 3098-3103.	1.6	213
97	Î±-Adrenergic Coronary Vasoconstriction and Myocardial Ischemia in Humans. Circulation, 2000, 101, 689-694.	1.6	231
98	In vivo location and mechanism of EDHF-mediated vasodilation in canine coronary microcirculation. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H1252-H1259.	3.2	65
99	Changes in coronary endothelial cell Ca2+ concentration during shear stress- and agonist-induced vasodilation. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H1706-H1714.	3.2	50
100	Prologue: ischemic preconditioning in cardiac vascular muscle. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 277, H2416-H2417.	3.2	3
101	Regulation of Shear Stress in the Canine Coronary Microcirculation. Circulation, 1999, 100, 1555-1561.	1.6	108
102	Requisite Role of Cardiac Myocytes in Coronary Î±1-Adrenergic Constriction. Circulation, 1998, 98, 9-12.	1.6	51
103	Repetitive coronary artery occlusions induce release of growth factors into the myocardial interstitium. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 275, H969-H976.	3.2	28
104	Integrin Signaling Transduces Shear Stress-Dependent Vasodilation of Coronary Arterioles. Circulation Research, 1997, 80, 320-326.	4.5	162