Erkan Tuncay

List of Publications by Year in descending order

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70 papers	1,357 citations	393982 19 h-index	360668 35 g-index
74 all docs	74 docs citations	74 times ranked	2031 citing authors

#	Article	IF	Citations
1	European contribution to the study of ROS: A summary of the findings and prospects for the future from the COST action BM1203 (EU-ROS). Redox Biology, 2017, 13, 94-162.	3.9	242
2	A SGLT2 inhibitor dapagliflozin suppresses prolonged ventricular-repolarization through augmentation of mitochondrial function in insulin-resistant metabolic syndrome rats. Cardiovascular Diabetology, 2018, 17, 144.	2.7	105
3	Mitochondrial and ER-Targeted eCALWY Probes Reveal High Levels of Free Zn²⁺. ACS Chemical Biology, 2014, 9, 2111-2120.	1.6	102
4	Resveratrol and diabetic cardiac function: focus on recent in vitro and in vivo studies. Journal of Bioenergetics and Biomembranes, 2012, 44, 281-296.	1.0	70
5	Hyperglycemia-Induced Changes in ZIP7 and ZnT7 Expression Cause Zn2+ Release From the Sarco(endo)plasmic Reticulum and Mediate ER Stress in the Heart. Diabetes, 2017, 66, 1346-1358.	0.3	66
6	Altered mitochondrial metabolism in the insulinâ€resistant heart. Acta Physiologica, 2020, 228, e13430.	1.8	56
7	Intracellular free zinc during cardiac excitationâ€“contraction cycle: calcium and redox dependencies. Cardiovascular Research, 2011, 89, 634-642.	1.8	54
8	ÃŸ-Blocker Timolol Prevents Arrhythmogenic Ca2+ Release and Normalizes Ca2+ and Zn2+ Dyshomeostasis in Hyperglycemic Rat Heart. PLoS ONE, 2013, 8, e71014.	1.1	44
9	Zn2+-transporters ZIP7 and ZnT7 play important role in progression of cardiac dysfunction via affecting sarco(endo)plasmic reticulum-mitochondria coupling in hyperglycemic cardiomyocytes. Mitochondrion, 2019, 44, 41-52.	1.6	40
10	Cardioprotective effect of selenium via modulation of cardiac ryanodine receptor calcium release channels in diabetic rat cardiomyocytes through thioredoxin system. Journal of Nutritional Biochemistry, 2013, 24, 2110-2118.	1.9	34
11	Sex-related effects on diabetes-induced alterations in calcium release in the rat heart. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 293, H3584-H3592.	1.5	32
12	Gender related differential effects of Omega-3E treatment on diabetes-induced left ventricular dysfunction. Molecular and Cellular Biochemistry, 2007, 304, 255-263.	1.4	31
13	Intracellular Zn2+ Increase in Cardiomyocytes Induces both Electrical and Mechanical Dysfunction in Heart via Endogenous Generation of Reactive Nitrogen Species. Biological Trace Element Research, 2016, 169, 294-302.	1.9	31
14	Enhancement of Cellular Antioxidant-Defence Preserves Diastolic Dysfunction via Regulation of Both Diastolic Zn2+and Ca2+and Prevention of RyR2-Leak in Hyperglycemic Cardiomyocytes. Oxidative Medicine and Cellular Longevity, 2014, 2014, 1-15.	1.9	30
15	Impact of Labile Zinc on Heart Function: From Physiology to Pathophysiology. International Journal of Molecular Sciences, 2017, 18, 2395.	1.8	30
16	Ageingâ€associated increase in SGLT2 disrupts mitochondrial/sarcoplasmic reticulum Ca²⁺ homeostasis and promotes cardiac dysfunction. Journal of Cellular and Molecular Medicine, 2020, 24, 8567-8578.	1.6	27
17	Increased free Zn²⁺ correlates induction of sarco(endo)plasmic reticulum stress via altered expression levels of Zn²⁺â€transporters in heart failure. Journal of Cellular and Molecular Medicine, 2018, 22, 1944-1956.	1.6	25
18	Beta-blocker timolol alleviates hyperglycemia-induced cardiac damage via inhibition of endoplasmic reticulum stress. Journal of Bioenergetics and Biomembranes, 2014, 46, 377-387.	1.0	23

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19	Profiling of cardiac Î²-adrenoceptor subtypes in the cardiac left ventricle of rats with metabolic syndrome: Comparison with streptozotocin-induced diabetic rats. Canadian Journal of Physiology and Pharmacology, 2015, 93, 517-525.	0.7	21
20	Interplay Between Cytosolic Free Zn2+ and Mitochondrion Morphological Changes in Rat Ventricular Cardiomyocytes. Biological Trace Element Research, 2016, 174, 177-188.	1.9	20
21	MitoTEMPO provides an antiarrhythmic effect in aged-rats through attenuation of mitochondrial reactive oxygen species. Experimental Gerontology, 2020, 136, 110961.	1.2	20
22	Onset of decreased heart work is correlated with increased heart rate and shortened QT interval in high-carbohydrate fed overweight rats. Canadian Journal of Physiology and Pharmacology, 2017, 95, 1335-1342.	0.7	19
23	Mitochondria-Targeting Antioxidant Provides Cardioprotection through Regulation of Cytosolic and Mitochondrial Zn2+ Levels with Re-Distribution of Zn2+-Transporters in Aged Rat Cardiomyocytes. International Journal of Molecular Sciences, 2019, 20, 3783.	1.8	19
24	Antioxidants but not Doxycycline Treatments Restore Depressed Beta-Adrenergic Responses of the Heart in Diabetic Rats. Cardiovascular Toxicology, 2009, 9, 21-29.	1.1	17
25	Cardioprotective effect of propranolol on diabetes-induced altered intracellular Ca2+ signaling in rat. Journal of Bioenergetics and Biomembranes, 2011, 43, 747-756.	1.0	16
26	Cytosolic increased labile Zn2+ contributes to arrhythmogenic action potentials in left ventricular cardiomyocytes through protein thiol oxidation and cellular ATP depletion. Journal of Trace Elements in Medicine and Biology, 2018, 48, 202-212.	1.5	14
27	Improvement of Functional Recovery of Donor Heart Following Cold Static Storage with Doxycycline Cardioplegia. Cardiovascular Toxicology, 2014, 14, 64-73.	1.1	13
28	Long-term treatment with a beta-blocker timolol attenuates renal-damage in diabetic rats via enhancing kidney antioxidant-defense system. Molecular and Cellular Biochemistry, 2014, 395, 177-186.	1.4	11
29	Differential expression of genes participating in cardiomyocyte electrophysiological remodeling via membrane ionic mechanisms and Ca2+-handling in human heart failure. Molecular and Cellular Biochemistry, 2020, 463, 33-44.	1.4	10
30	The role of labile Zn2+ and Zn2+â€“transporters in the pathophysiology of mitochondria dysfunction in cardiomyocytes. Molecular and Cellular Biochemistry, 2021, 476, 971-989.	1.4	10
31	Glucagonâ€like peptideâ€1 receptor agonist treatment of high carbohydrate intakeâ€induced metabolic syndrome provides pleiotropic effects on cardiac dysfunction through alleviations in electrical and intracellular Ca²⁺ abnormalities and mitochondrial dysfunction. Clinical and Experimental Pharmacology and Physiology, 2022, 49, 46-59.	0.9	10
32	Age-related regulation of excitationâ€“contraction coupling in rat heart. Journal of Physiology and Biochemistry, 2011, 67, 317-330.	1.3	9
33	Azoramide improves mitochondrial dysfunction in palmitate-induced insulin resistant H9c2 cells. Molecular and Cellular Biochemistry, 2019, 461, 65-72.	1.4	9
34	Effects of Î²-adrenergic receptor blockers on cardiac function: a comparative study in male versus female ratsThis article is one of a selection of papers from the NATO Advanced Research Workshop on Translational Knowledge for Heart Health (published in part 2 of a 2-part Special Issue).. Canadian Journal of Physiology and Pharmacology, 2009, 87, 310-317.	0.7	8
35	Profound cardioprotection with timolol in a female rat model of aging-related altered left ventricular function. Canadian Journal of Physiology and Pharmacology, 2011, 89, 277-288.	0.7	8
36	Intermittent Hypoxia Induced Beneficial Cardiovascular Remodeling in Left Ventricular Function of Type 1 Diabetic Rat. Anatolian Journal of Cardiology, 2018, 19, 259-266.	0.5	8

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37	Insulin acts as an atypical KCNQ1/KCNE1â€current activator and reverses long QT in insulinâ€resistant aged rats by accelerating the ventricular action potential repolarization through affecting the Î²₃â€adrenergic receptor signaling pathway. Journal of Cellular Physiology, 2022, 237, 1353-1371.	2.0	8
38	Î² 3 â€adrenergic receptor activation plays an important role in the depressed myocardial contractility via both elevated levels of cellular free Zn 2+ and reactive nitrogen species. Journal of Cellular Physiology, 2019, 234, 13370-13386.	2.0	7
39	Ticagrelor reverses the mitochondrial dysfunction through preventing accumulated autophagosomes-dependent apoptosis and ER stress in insulin-resistant H9c2 myocytes. Molecular and Cellular Biochemistry, 2020, 469, 97-107.	1.4	7
40	Demonstration of subcellular migration of CK2Î± localization from nucleus to sarco(endo)plasmic reticulum in mammalian cardiomyocytes under hyperglycemia. Molecular and Cellular Biochemistry, 2018, 443, 25-36.	1.4	6
41	Molecular and Electrophysiological Role of Diabetes-Associated Circulating Inflammatory Factors in Cardiac Arrhythmia Remodeling in a Metabolic-Induced Model of Type 2 Diabetic Rat. International Journal of Molecular Sciences, 2021, 22, 6827.	1.8	6
42	Intracellular Free Zinc Ion Increase Triggers Hyperglycemia-Induced Cardiomyocyte Dysfunction through Endoplasmic Reticulum Stress. Biophysical Journal, 2014, 106, 113a.	0.2	4
43	Immuno-spin trapping detection of antioxidant/pro-oxidant properties of zinc or selenium on DNA and protein radical formation via hydrogen peroxide. Molecular and Cellular Biochemistry, 2015, 409, 23-31.	1.4	4
44	Ticagrelor alleviates high-carbohydrate intake induced altered electrical activity of ventricular cardiomyocytes by regulating sarcoplasmic reticulumâ€“mitochondria miscommunication. Molecular and Cellular Biochemistry, 2021, 476, 3827-3844.	1.4	4
45	Comparisons of pleiotropic effects of SGLT2 inhibition and GLP-1 agonism on cardiac glucose intolerance in heart dysfunction. Molecular and Cellular Biochemistry, 2022, 477, 2609-2625.	1.4	4
46	Regulation of cardiac Î²3-adrenergic receptors in hyperglycemia. Indian Journal of Biochemistry and Biophysics, 2014, 51, 483-92.	0.2	2
47	Astaxanthin Enhances Gingival Wound Healing following High Glucose-Induced Oxidative Stress. BioMed Research International, 2022, 2022, 1-7.	0.9	2
48	Sex differences affect Ca2+ sparks parameters in normal and diabetic rat ventricular cardiomyoctes. Journal of Molecular and Cellular Cardiology, 2007, 42, S109-S110.	0.9	1
49	Enhancement of Antioxidant Defence Preserves RyR2 Function of Hyperglycemic Cardiomyocytes via Regulation of both Intracellular Zn2+ and Ca2+ Homeostasis. Biophysical Journal, 2013, 104, 284a-285a.	0.2	1
50	Activation of Î²3-Adrenoceptors Induces Increase in Intracellular Free Zinc Ion via No Signaling Pathway in Hyperglycemic Cardiomyocytes. Biophysical Journal, 2013, 104, 614a.	0.2	1
51	STIM1-Orai1 interaction mediated calcium influx activation contributes to cardiac contractility of insulin-resistant rats. BMC Cardiovascular Disorders, 2022, 22, 147.	0.7	1
52	Sex related differential effects of omega-3E treatment on diabetes-induced left ventricular dysfunction. Journal of Molecular and Cellular Cardiology, 2007, 42, S110.	0.9	0
53	Beneficial effect of sodium selenate on vascular dysfunction in diabetic rats. Journal of Molecular and Cellular Cardiology, 2007, 42, S229.	0.9	0
54	Antioxidants but not doxycycline restore depressed Î²-adrenergic responses of the heart in diabetic rats. Journal of Molecular and Cellular Cardiology, 2008, 44, 746.	0.9	0

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55	Beneficial effects of non-selective beta blockers on mechanical and electrical activities of diabetic rat heart. Journal of Molecular and Cellular Cardiology, 2008, 44, 775.	0.9	0
56	Beneficial effects of long-term treatment with beta-adrenergic blocker on depressed heart function of female rats. Journal of Molecular and Cellular Cardiology, 2008, 44, 816.	0.9	0
57	Intracellular Zn2+ Release Modulates Cardiac Ryanodine Receptor Function and Cellular Activity. Biophysical Journal, 2010, 98, 334a.	0.2	0
58	Association Between Î²3-Adrenoceptor Activation and Intracellular FreeÂZinc Ion Increase Contributes to Hyperglycemia-Induced Cardiac ER-Stress. Biophysical Journal, 2016, 110, 433a-434a.	0.2	0
59	An Investigation on Electrical Activity and Sarcolemmal K+-Channels in Cardiomyocytes from Insulin-Resistant Rat Heart. Biophysical Journal, 2016, 110, 272a-273a.	0.2	0
60	Age-Related Changes in Electrical Activities and Micrornas of Left Ventricular Cardiomyocytes Isolated from Rat Heart. Biophysical Journal, 2016, 110, 587a.	0.2	0
61	Role of ZIP7 in Regulation of Cytosolic Free Zn2+ Level in Mammalian Cardiomyocytes. Biophysical Journal, 2016, 110, 588a.	0.2	0
62	Role of Zinc Transporters in Mammalian Heart under Physiological and Pathological Conditions. Biophysical Journal, 2017, 112, 538a.	0.2	0
63	Inhibiton of Protein Kinase G Preserves Prolonged Ventricular Action Potentials via Improvement of Slow-Activated Voltage-Dependent K+-Channel Currents in Aged Rat Cardiomyocytes. Biophysical Journal, 2019, 116, 98a.	0.2	0
64	Sirtuins Positively Regulate KATP Channels, Which Contributes to their Cardioprotective Role. Biophysical Journal, 2019, 116, 250a.	0.2	0
65	Investigation of the Effect of the Antiaggregant Agent Ticagrelor on the Electrical and Mechanical Activities of Rat Heart With Type 1 Diabetes. Journal of Ankara University Faculty of Medicine, 2021, 74, 206-212.	0.0	0
66	Bimodal Effects of P2Y12 Antagonism on Matrix Metalloproteinaseâ€“Associated Contractile Dysfunction in Ä°nsulin-Resistant Mammalian Heart. Biological Trace Element Research, 2021, , 1.	1.9	0
67	Timolol treatment of diabetic rats improved basal cardiac function and responses to Î²3â€•but not Î²1â€•and Î²2â€•receptors stimulations. FASEB Journal, 2011, 25, 1098.4.	0.2	0
68	Dynamic imaging of compartmentalised intracellular free Zn 2+ concentrations in rat ventricular cardiomyocytes. FASEB Journal, 2015, 29, 951.3.	0.2	0
69	Roles of Intracellular Free Zn 2+ on Electrical and Mechanical Activities of the Heart. FASEB Journal, 2015, 29, 1042.3.	0.2	0
70	The Role of Crossâ€•links Between Endoplasmic Reticulum Stress, Oxidative stress and Mitochondrial dysfunction in Cardiomyocytes and H9c2 Cells under Hyperglycemia. FASEB Journal, 2015, 29, 1025.5.	0.2	0