Eleonora Grandi

List of Publications by Year
in descending order

71 papers	3,849 citations	147801 31 h-index	138484 58 g-index
77 all docs	77 docs citations	77 times ranked	3491 citing authors

#	Article	IF	Citations
1	A novel computational model of the human ventricular action potential and Ca transient. Journal of Molecular and Cellular Cardiology, 2010, 48, 112-121.	1.9	393
2	Human Atrial Action Potential and Ca ²⁺ Model. Circulation Research, 2011, 109, 1055-1066.	4.5	368
3	Reactive Oxygen Speciesâ€“Activated Ca/Calmodulin Kinase IIÎ´ Is Required for Late <i>I</i> _{Na} Augmentation Leading to Cellular Na and Ca Overload. Circulation Research, 2011, 108, 555-565.	4.5	256
4	FRET biosensor uncovers cAMP nano-domains at Î²-adrenergic targets that dictate precise tuning of cardiac contractility. Nature Communications, 2017, 8, 15031.	12.8	166
5	Ion Channels in the Heart. , 2015, 5, 1423-1464.		135
6	Calcium/Calmodulin-dependent Kinase II Regulation of Cardiac Ion Channels. Journal of Cardiovascular Pharmacology, 2009, 54, 180-187.	1.9	132
7	Ca/Calmodulin Kinase II Differentially Modulates Potassium Currents. Circulation: Arrhythmia and Electrophysiology, 2009, 2, 285-294.	4.8	121
8	Simulation of Ca-Calmodulin-Dependent Protein Kinase II on Rabbit Ventricular Myocyte Ion Currents and Action Potentials. Biophysical Journal, 2007, 93, 3835-3847.	0.5	99
9	Late Sodium Current Contributes to the Reverse Rate-Dependent Effect of I _{Kr} Inhibition on Ventricular Repolarization. Circulation, 2011, 123, 1713-1720.	1.6	97
10	A novel computational model of mouse myocyte electrophysiology to assess the synergy between Na⁺ loading and CaMKII. Journal of Physiology, 2014, 592, 1181-1197.	2.9	96
11	Patients with complex arrhythmias during and after haemodialysis suffer from different regimens of potassium removal. Nephrology Dialysis Transplantation, 2007, 23, 1415-1421.	0.7	88
12	A computational model of induced pluripotent stemâ€cell derived cardiomyocytes incorporating experimental variability from multiple data sources. Journal of Physiology, 2019, 597, 4533-4564.	2.9	87
13	Ser ¹⁹²⁸ phosphorylation by PKA stimulates the L-type Ca ²⁺ channel Ca _V 1.2 and vasoconstriction during acute hyperglycemia and diabetes. Science Signaling, 2017, 10, .	3.6	85
14	Post-translational modifications of the cardiac Na channel: contribution of CaMKII-dependent phosphorylation to acquired arrhythmias. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 305, H431-H445.	3.2	80
15	Ranolazine for Congenital and Acquired Late I _{Na} -Linked Arrhythmias. Circulation Research, 2013, 113, e50-e61.	4.5	79
16	Potassium channels in the heart: structure, function and regulation. Journal of Physiology, 2017, 595, 2209-2228.	2.9	79
17	Potassium currents in the heart: functional roles in repolarization, arrhythmia and therapeutics. Journal of Physiology, 2017, 595, 2229-2252.	2.9	76
18	General Principles for the Validation of Proarrhythmia Risk Prediction Models: An Extension of the CiPA <i>In Silico</i> Strategy. Clinical Pharmacology and Therapeutics, 2020, 107, 102-111.	4.7	67

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19	Î²-adrenergic stimulation activates early afterdepolarizations transiently via kinetic mismatch of PKA targets. Journal of Molecular and Cellular Cardiology, 2013, 58, 153-161.	1.9	66
20	A Heart for Diversity: Simulating Variability in Cardiac Arrhythmia Research. Frontiers in Physiology, 2018, 9, 958.	2.8	66
21	Calcium and potassium changes during haemodialysis alter ventricular repolarization duration: in vivo and in silico analysis. Nephrology Dialysis Transplantation, 2007, 23, 1378-1386.	0.7	62
22	Na⁺ channel function, regulation, structure, trafficking and sequestration. Journal of Physiology, 2015, 593, 1347-1360.	2.9	59
23	Antiarrhythmic mechanisms of beta blocker therapy. Pharmacological Research, 2019, 146, 104274.	7.1	58
24	Logistic regression analysis of populations of electrophysiological models to assess proarrythmic risk. MethodsX, 2017, 4, 25-34.	1.6	53
25	Î²-adrenergic effects on cardiac myofilaments and contraction in an integrated rabbit ventricular myocyte model. Journal of Molecular and Cellular Cardiology, 2015, 81, 162-175.	1.9	52
26	Theoretical study of Lâ€type Ca²⁺ current inactivation kinetics during action potential repolarization and early afterdepolarizations. Journal of Physiology, 2012, 590, 4465-4481.	2.9	47
27	Atrial-selective targeting of arrhythmogenic phase-3 early afterdepolarizations in human myocytes. Journal of Molecular and Cellular Cardiology, 2016, 96, 63-71.	1.9	46
28	Theoretical investigation of action potential duration dependence on extracellular Ca2+ in human cardiomyocytes. Journal of Molecular and Cellular Cardiology, 2009, 46, 332-342.	1.9	42
29	Nonequilibrium Reactivation of Na + Current Drives Early Afterdepolarizations in Mouse Ventricle. Circulation: Arrhythmia and Electrophysiology, 2014, 7, 1205-1213.	4.8	42
30	CaMKII-dependent regulation of cardiac Na+ homeostasis. Frontiers in Pharmacology, 2014, 5, 41.	3.5	39
31	Quantitative analysis of the Ca²⁺â€dependent regulation of delayed rectifier K⁺ current <i>I</i>_{Ks} in rabbit ventricular myocytes. Journal of Physiology, 2017, 595, 2253-2268.	2.9	37
32	<i>In silico</i> prediction of drug therapy in catecholaminergic polymorphic ventricular tachycardia. Journal of Physiology, 2016, 594, 567-593.	2.9	35
33	Adenylyl cyclase 5â€“generated cAMP controls cerebral vascular reactivity during diabetic hyperglycemia. Journal of Clinical Investigation, 2019, 129, 3140-3152.	8.2	35
34	Interplay of voltage and Ca-dependent inactivation of L-type Ca current. Progress in Biophysics and Molecular Biology, 2010, 103, 44-50.	2.9	33
35	Slow [Na] _i Changes and Positive Feedback Between Membrane Potential and [Ca] _i Underlie Intermittent Early Afterdepolarizations and Arrhythmias. Circulation: Arrhythmia and Electrophysiology, 2015, 8, 1472-1480.	4.8	31
36	Hypokalemia Promotes Arrhythmia by Distinct Mechanisms in Atrial and Ventricular Myocytes. Circulation Research, 2020, 126, 889-906.	4.5	31

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37	Anti-arrhythmic strategies for atrial fibrillation. , 2016, 168, 126-142.		29
38	Inward Rectifier Potassium Channels (Kir2.x) and Caveolin-3 Domainâ€"Specific Interaction. Circulation: Arrhythmia and Electrophysiology, 2018, 11, e005800.	4.8	29
39	Enhanced Depolarization Drive in Failing Rabbit Ventricular Myocytes. Circulation: Arrhythmia and Electrophysiology, 2019, 12, e007061.	4.8	29
40	In Silico Assessment of Efficacy and Safety of IKur Inhibitors in Chronic Atrial Fibrillation: Role of Kinetics and State-Dependence of Drug Binding. Frontiers in Pharmacology, 2017, 8, 799.	3.5	24
41	Computational modeling: What does it tell us about atrial fibrillation therapy?. International Journal of Cardiology, 2019, 287, 155-161.	1.7	24
42	Cardiac response to hemodialysis with different cardiovascular tolerance: Heart rate variability and QT interval analysis. Hemodialysis International, 2006, 10, 287-293.	0.9	23
43	In silico assessment of Y1795C and Y1795H SCN5A mutations: implication for inherited arrhythmogenic syndromes. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H56-H65.	3.2	23
44	Populations of in silico myocytes and tissues reveal synergy of multiatrialâ€predominant K⁺â€current block in atrial fibrillation. British Journal of Pharmacology, 2020, 177, 4497-4515.	5.4	23
45	Human Atrial Fibrillation: Insights From Computational Electrophysiological Models. Trends in Cardiovascular Medicine, 2011, 21, 145-150.	4.9	22
46	Different paths, same destination: divergent action potential responses produce conserved cardiac fightâ€orâ€flight response in mouse and rabbit hearts. Journal of Physiology, 2019, 597, 3867-3883.	2.9	22
47	Sexâ€Specific Classification of Drugâ€Induced Torsade de Pointes Susceptibility Using Cardiac Simulations and Machine Learning. Clinical Pharmacology and Therapeutics, 2021, 110, 380-391.	4.7	22
48	Quantitative cross-species translators of cardiac myocyte electrophysiology: Model training, experimental validation, and applications. Science Advances, 2021, 7, eabg0927.	10.3	22
49	How does Î²-adrenergic signalling affect the transitions from ventricular tachycardia to ventricular fibrillation?. Europace, 2014, 16, 452-457.	1.7	21
50	Transient outward K⁺ current can strongly modulate action potential duration and initiate alternans in the human atrium. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H527-H542.	3.2	20
51	Applications of Dynamic Clamp to Cardiac Arrhythmia Research: Role in Drug Target Discovery and Safety Pharmacology Testing. Frontiers in Physiology, 2017, 8, 1099.	2.8	19
52	Revealing kinetics and state-dependent binding properties of IKur-targeting drugs that maximize atrial fibrillation selectivity. Chaos, 2017, 27, 093918.	2.5	17
53	Predominant contribution of L-type Cav1.2 channel stimulation to impaired intracellular calcium and cerebral artery vasoconstriction in diabetic hyperglycemia. Channels, 2017, 11, 340-346.	2.8	16
54	GRK5 Controls SAP97-Dependent Cardiotoxic Î² ₁ Adrenergic Receptor-CaMKII Signaling in Heart Failure. Circulation Research, 2020, 127, 796-810.	4.5	16

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55	Induction of NO synthase 2 in ventricular cardiomyocytes incubated with a conventional bicarbonate dialysis bath. Nephrology Dialysis Transplantation, 2008, 23, 2192-2197.	0.7	15
56	Bidirectional flow of the funny current (I _f) during the pacemaking cycle in murine sinoatrial node myocytes. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	14
57	Intracellular Na+ Modulates Pacemaking Activity in Murine Sinoatrial Node Myocytes: An In Silico Analysis. International Journal of Molecular Sciences, 2021, 22, 5645.	4.1	13
58	Non-ion channel therapeutics for heart failure and atrial fibrillation: Are CaMKII inhibitors ready for clinical use?. Journal of Molecular and Cellular Cardiology, 2018, 121, 300-303.	1.9	12
59	Editorial: Safety Pharmacology â€" Risk Assessment QT Interval Prolongation and Beyond. Frontiers in Physiology, 2018, 9, 678.	2.8	10
60	Small-Conductance Ca2+-Activated K+ Current in Atrial Fibrillation: Both Friend and FOE. Biophysical Journal, 2016, 110, 274a.	0.5	8
61	TGF-Î²1â€"induced endothelial-mesenchymal transition: a potential contributor to fibrotic remodeling in atrial fibrillation?. Journal of Clinical Investigation, 2022, 132, .	8.2	8
62	CaMKII comes of age in cardiac health and disease. Frontiers in Pharmacology, 2014, 5, 154.	3.5	7
63	Quantitative systems models illuminate arrhythmia mechanisms in heart failure: Role of the Na+ -Ca2+ -Ca2+ /calmodulin-dependent protein kinase II-reactive oxygen species feedback. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2019, 11, e1434.	6.6	4
64	Altered Excitation-Contraction Coupling in Human Chronic Atrial Fibrillation. Journal of Atrial Fibrillation, 2012, 4, 495.	0.5	4
65	Models of the Ventricular Action Potential in Health and Disease. , 2014, , 319-330.		3
66	Size matters, proportion too: coupling of experiments and theory reveals relative roles of K⁺ channels in action potential stability. Journal of Physiology, 2017, 595, 2319-2320.	2.9	2
67	Mechanisms of Cav3-associated arrhythmia: Protein or microdomain dysfunction?. International Journal of Cardiology, 2020, 320, 97-99.	1.7	2
68	Keeping it short and (not so) simple: characterizing hERG kinetics with sinusoidal waves. Journal of Physiology, 2018, 596, 1783-1784.	2.9	1
69	Effects of Modulation of Small-Conductance Calcium-Activated Potassium Current on Atrial Electrophysiology and Arrhythmogenesis: A Population-Based Computational Study. Biophysical Journal, 2018, 114, 473a.	0.5	1
70	Atrial fibrillation in a dish: insights into atrial arrhythmogenesis from induced pluripotent stem cell-derived cardiomyocytes. Cardiovascular Research, 2020, 116, 1089-1091.	3.8	0
71	Computer Simulation of Altered Sodium Channel Gating in Rabbit and HumanVentricular Myocytes. , 2007, , 120-128.		0