Ronald Wilders

List of Publications by Year
in descending order

95 papers	4,516 citations	93792 39 h-index	120465 65 g-index
97 all docs	97 docs citations	97 times ranked	4383 citing authors

#	Article	IF	Citations
1	Acetylcholine Reduces IKr and Prolongs Action Potentials in Human Ventricular Cardiomyocytes. Biomedicines, 2022, 10, 244.	1.4	3
2	shRNAs Targeting a Common KCNQ1 Variant Could Alleviate Long-QT1 Disease Severity by Inhibiting a Mutant Allele. International Journal of Molecular Sciences, 2022, 23, 4053.	1.8	0
3	Dynamic Clamp in Electrophysiological Studies on Stem Cellâ€“Derived Cardiomyocytesâ€”Why and How?. Journal of Cardiovascular Pharmacology, 2021, 77, 267-279.	0.8	10
4	Patch-Clamp Recordings of Action Potentials From Human Atrial Myocytes: Optimization Through Dynamic Clamp. Frontiers in Pharmacology, 2021, 12, 649414.	1.6	16
5	HCN4 current during human sinoatrial node-like action potentials. Progress in Biophysics and Molecular Biology, 2021, 166, 105-118.	1.4	11
6	Functional Role of the HCN4 Encoded â€˜Funny Currentâ€™ in Human Sinus Node Pacemaker Cells. , 2021, , .		0
7	Ultrarapid Delayed Rectifier K+ Channelopathies in Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes. Frontiers in Cell and Developmental Biology, 2020, 8, 536.	1.8	12
8	Toward Biological Pacing by Cellular Delivery of Hcn2/SkM1. Frontiers in Physiology, 2020, 11, 588679.	1.3	5
9	Self-restoration of cardiac excitation rhythm by anti-arrhythmic ion channel gating. ELife, 2020, 9, .	2.8	12
10	Genetic variation in <i>GNB5</i> causes bradycardia by increasing IK,ACh augmenting cholinergic response. DMM Disease Models and Mechanisms, 2019, 12, .	1.2	19
11	Aquaporin Channels in the Heartâ€”Physiology and Pathophysiology. International Journal of Molecular Sciences, 2019, 20, 2039.	1.8	26
12	Cellular Mechanisms of Sinus Node Dysfunction in Carriers of the SCN5A-E161K Mutation and Role of the H558R Polymorphism. Frontiers in Physiology, 2018, 9, 1795.	1.3	4
13	Long QT Syndrome and Sinus Bradycardiaâ€“A Mini Review. Frontiers in Cardiovascular Medicine, 2018, 5, 106.	1.1	29
14	KV4.3 Expression Modulates NaV1.5 Sodium Current. Frontiers in Physiology, 2018, 9, 178.	1.3	30
15	Sinus Bradycardia in Carriers of the SCN5A-1795insD Mutation: Unraveling the Mechanism through Computer Simulations. International Journal of Molecular Sciences, 2018, 19, 634.	1.8	11
16	Computational analysis of the human sinus node action potential: model development and effects of mutations. Journal of Physiology, 2017, 595, 2365-2396.	1.3	121
17	The Brugada Syndrome Susceptibility Gene <i>HEY2</i> Modulates Cardiac Transmural Ion Channel Patterning and Electrical Heterogeneity. Circulation Research, 2017, 121, 537-548.	2.0	63
18	Response by Veerman et al to Letter Regarding Article, â€œThe Brugada Syndrome Susceptibility Gene HEY2 Modulates Cardiac Transmural Ion Channel Patterning and Electrical Heterogeneityâ€. Circulation Research, 2017, 121, e21.	2.0	0

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19	Patch-Clamp Recording from Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes: Improving Action Potential Characteristics through Dynamic Clamp. International Journal of Molecular Sciences, 2017, 18, 1873.	1.8	55
20	Bradycardic Effects of Mutations in the HCN4 Gene at Different Levels of Autonomic Tone in Humans. , 2017, , .		0
21	A novel computational model of the human sinoatrial action potential. , 2015, , .		1
22	Real-time simulation of IK1 in cardiomyocytes derived from human induced pluripotent stem cells. , 2015, , .		0
23	A note on the prevalence of cardiac ion channelopathies in the sudden infant death syndrome. Europace, 2015, 17, 1739.	0.7	3
24	Ion channelopathies in human induced pluripotent stem cell derived cardiomyocytes: a dynamic clamp study with virtual IK1. Frontiers in Physiology, 2015, 6, 7.	1.3	96
25	Ca2+ cycling properties are conserved despite bradycardic effects of heart failure in sinoatrial node cells. Frontiers in Physiology, 2015, 6, 18.	1.3	9
26	Pacemaker Activity of the Human Sinoatrial Node: An Update on the Effects of Mutations in HCN4 on the Hyperpolarization-Activated Current. International Journal of Molecular Sciences, 2015, 16, 3071-3094.	1.8	89
27	Pacemaker activity of the human sinoatrial node: effects of HCN4 mutations on the hyperpolarization-activated current. Europace, 2014, 16, 384-395.	0.7	37
28	Dynamic Clamp as a Tool to Study the Functional Effects of Individual Membrane Currents. Methods in Molecular Biology, 2014, 1183, 309-326.	0.4	8
29	Andersenâ€“Tawil syndrome: Clinical and molecular aspects. International Journal of Cardiology, 2013, 170, 1-16.	0.8	82
30	Sodium current inhibition by nanosecond pulsed electric field (nsPEF)â€"fact or artifact?. Bioelectromagnetics, 2013, 34, 162-164.	0.9	4
31	Hyperpolarization-Activated Current, , in Mathematical Models of Rabbit Sinoatrial Node Pacemaker Cells. BioMed Research International, 2013, 2013, 1-18.	0.9	20
32	Slow Delayed Rectifier Potassium Current Blockade Contributes Importantly to Drug-Induced Long QT Syndrome. Circulation: Arrhythmia and Electrophysiology, 2013, 6, 1002-1009.	2.1	41
33	Arrhythmogenic Right Ventricular Dysplasia/Cardiomyopathy Type 1: A Light on Molecular Mechanisms. Genetics Research International, 2013, 2013, 1-8.	2.0	1
34	Calcium Transient and Sodium-Calcium Exchange Current in Human versus Rabbit Sinoatrial Node Pacemaker Cells. Scientific World Journal, The, 2013, 2013, 1-10.	0.8	19
35	Effects of Acetylcholine and Noradrenalin on Action Potentials of Isolated Rabbit Sinoatrial and Atrial Myocytes. Frontiers in Physiology, 2012, 3, 174.	1.3	42
36	Arrhythmogenic Right Ventricular Cardiomyopathy: Considerations from in Silico Experiments. Frontiers in Physiology, 2012, 3, 168.	1.3	13

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37	Cardiac Ion Channelopathies and the Sudden Infant Death Syndrome. ISRN Cardiology, 2012, 2012, 1-28.	1.6	39
38	Pacemaker Activity of the SA Node: Insights from Dynamic-Clamp Experiments. , 2011, , 101-117.		0
39	Etiology-dependency of ionic remodeling in cardiomyopathic rabbits. International Journal of Cardiology, 2011, 148, 154-160.	0.8	6
40	Cardiac ion channel mutations in the sudden infant death syndrome. International Journal of Cardiology, 2011, 152, 162-170.	0.8	79
41	Drug-Induced Torsade de Pointes Arrhythmias in the Chronic AV Block Dog Are Perpetuated by Focal Activity. Circulation: Arrhythmia and Electrophysiology, 2011, 4, 566-576.	2.1	41
42	Effects of muscarinic receptor stimulation on Ca2+ transient, cAMP production and pacemaker frequency of rabbit sinoatrial node cells. Basic Research in Cardiology, 2010, 105, 73-87.	2.5	51
43	Re-Evaluation of the Action Potential Upstroke Velocity as a Measure of the Na+ Current in Cardiac Myocytes at Physiological Conditions. PLoS ONE, 2010, 5, e15772.	1.1	60
44	Role of the R1135H KCNH2 mutation in Brugada syndrome. International Journal of Cardiology, 2010, 144, 149-151.	0.8	38
45	Relative importance of funny current in human versus rabbit sinoatrial node. Journal of Molecular and Cellular Cardiology, 2010, 48, 799-801.	0.9	19
46	Genetically Determined Differences in Sodium Current Characteristics Modulate Conduction Disease Severity in Mice With Cardiac Sodium Channelopathy. Circulation Research, 2009, 104, 1283-1292.	2.0	86
47	Pacemaker activity of the human sinoatrial node: Role of the hyperpolarization-activated current, If. International Journal of Cardiology, 2009, 132, 318-336.	0.8	61
48	Dietary fish oil reduces pacemaker current and heart rate in rabbit. Heart Rhythm, 2009, 6, 1485-1492.	0.3	44
49	Development of a Genetically Engineered Cardiac Pacemaker: Insights from Dynamic Action Potential Clamp Experiments. , 2009, , 399-415.		1
50	Is sodium current present in human sinoatrial node cells?. International Journal of Biological Sciences, 2009, 5, 201-204.	2.6	35
51	Dynamic action potential clamp as a powerful tool in the development of a gene-based bio-pacemaker. , 2008, 2008, 133-6.		1
52	Pacemaker current (If) in the human sinoatrial node. European Heart Journal, 2007, 28, 2472-2478.	1.0	148
53	25 Years of SA Nodal Cell Modeling. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 152-5.	0.5	9
54	Single Cells Isolated from Human Sinoatrial Node: Action Potentials and Numerical Reconstruction of Pacemaker Current. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 904-7.	0.5	26

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55	Computational Model of Rabbit SA Node Pacemaker Activity Probed with Action Potential and Calcium Transient Clamp. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 156-9.	0.5	3
56	Propagation of pacemaker activity. Medical and Biological Engineering and Computing, 2007, 45, 177-187.	1.6	30
57	Computer modelling of the sinoatrial node. Medical and Biological Engineering and Computing, 2007, 45, 189-207.	1.6	84
58	Cardiac Channelopathies Studied With the Dynamic Action Potential-Clamp Technique. Methods in Molecular Biology, 2007, 403, 233-250.	0.4	6
59	Computer Modelling of the Sinoatrial Node. Series in Biomedical Engineering, 2007, , 121-148.	0.5	5
60	Long-QT syndrome-related sodium channel mutations probed by the dynamic action potential clamp technique. Journal of Physiology, 2006, 570, 237-250.	1.3	43
61	Dynamic clamp: a powerful tool in cardiac electrophysiology. Journal of Physiology, 2006, 576, 349-359.	1.3	81
62	Pro-arrhythmogenic potential of immature cardiomyocytes is triggered by low coupling and cluster size. Cardiovascular Research, 2006, 71, 704-714.	1.8	16
63	Overlap Syndrome of Cardiac Sodium Channel Disease in Mice Carrying the Equivalent Mutation of Human SCN5A -1795insD. Circulation, 2006, 114, 2584-2594.	1.6	174
64	Larger Cell Size in Rabbits With Heart Failure Increases Myocardial Conduction Velocity and QRS Duration. Circulation, 2006, 113, 806-813.	1.6	97
65	14-3-3 Is a Regulator of the Cardiac Voltage-Gated Sodium Channel Nav1.5. Circulation Research, 2006, 98, 1538-1546.	2.0	77
66	â€˜Dynamic clampâ€™ in cardiac electrophysiology. Journal of Physiology, 2005, 566, 641-641.	1.3	4
67	Gender Disparities in Cardiac Cellular Electrophysiology and Arrhythmia Susceptibility in Human Failing Ventricular Myocytes. International Heart Journal, 2005, 46, 1105-1118.	0.5	56
68	Impaired Impulse Propagation in Scn5a -Knockout Mice. Circulation, 2005, 112, 1927-1935.	1.6	151
69	Role of sequence variations in the human ether-a-go-go-related gene (HERG, KCNH2) in the Brugada syndrome. Cardiovascular Research, 2005, 68, 441-453.	1.8	63
70	A mutation in the human cardiac sodium channel (E161K) contributes to sick sinus syndrome, conduction disease and Brugada syndrome in two families. Journal of Molecular and Cellular Cardiology, 2005, 38, 969-981.	0.9	184
71	HERG Channel (Dys)function Revealed by Dynamic Action Potential Clamp Technique. Biophysical Journal, 2005, 88, 566-578.	0.2	90
72	A Common Antitussive Drug, Clobutinol, Precipitates the Long QT Syndrome 2. Molecular Pharmacology, 2004, 66, 1093-1102.	1.0	53

#	ARTICLE	IF	CITATIONS
73	Intercellular coupling through gap junctions masks M cells in the human heart. Cardiovascular Research, 2004, 62, 407-414.	1.8	98
74	Tidal volume, cardiac output and functional residual capacity determine end-tidal CO2transient during standing up in humans. Journal of Physiology, 2004, 554, 579-590.	1.3	70
75	Connexin43 orthologues in vertebrates: phylogeny from fish to man. Development Genes and Evolution, 2004, 214, 261-266.	0.4	11
76	NHE-1 and NBC during pseudo-ischemia/reperfusion in rabbit ventricular myocytes. Journal of Molecular and Cellular Cardiology, 2004, 37, 567-577.	0.9	34
77	Tissue Discontinuities Affect Conduction Velocity Restitution. Circulation, 2003, 108, 882-888.	1.6	29
78	Ionic Remodeling of Sinoatrial Node Cells by Heart Failure. Circulation, 2003, 108, 760-766.	1.6	102
79	Conduction slowing by the gap junctional uncoupler carbenoxolone. Cardiovascular Research, 2003, 60, 288-297.	1.8	82
80	A common polymorphism in KCNH2 (HERG) hastens cardiac repolarization. Cardiovascular Research, 2003, 59, 27-36.	1.8	156
81	Contribution of Sodium Channel Mutations to Bradycardia and Sinus Node Dysfunction in LQT3 Families. Circulation Research, 2003, 92, 976-983.	2.0	140
82	Atrio-Sinus Interaction Demonstrated by Blockade of the Rapid Delayed Rectifier Current. Circulation, 2002, 105, 880-885.	1.6	37
83	Ca 2+ â€activated Cl â˜' current in rabbit sinoatrial node cells. Journal of Physiology, 2002, 540, 105-117.	1.3	27
84	Channelopathies: Kir2.1 mutations jeopardize many cell functions. Current Biology, 2001, 11, R747-R750.	1.8	46
85	Effects of anisotropy on the development of cardiac arrhythmias associated with focal activity. Pflugers Archiv European Journal of Physiology, 2000, 441, 301-312.	1.3	82
86	Electrical interactions between a real ventricular cell and an anisotropic two-dimensional sheet of model cells. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H452-H460.	1.5	37
87	A spontaneously active focus drives a model atrial sheet more easily than a model ventricular sheet. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H752-H763.	1.5	35
88	Gap Junctions in Cardiovascular Disease. Circulation Research, 2000, 86, 1193-1197.	2.0	363
89	Electrical interactions among real cardiac cells and cell models in a linear strand. American Journal of Physiology - Heart and Circulatory Physiology, 1999, 276, H391-H400.	1.5	7
90	Effects of Ischemia on Discontinuous Action Potential Conduction in Hybrid Pairs of Ventricular Cells. Circulation, 1999, 99, 1623-1629.	1.6	17

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91	Quantitative analysis of dual whole-cell voltage-clamp determination of gap junctional conductance. Pflugers Archiv European Journal of Physiology, 1998, 436, 141-151.	1.3	46
92	Pacemaker Synchronization of Electrically Coupled Rabbit Sinoatrial Node Cells. Journal of General Physiology, 1998, 111, 95-112.	0.9	95
93	Electrical interactions between a rabbit atrial cell and a nodal cell model. American Journal of Physiology - Heart and Circulatory Physiology, 1998, 274, H2152-H2162.	1.5	26
94	Experimental Model for an Ectopic Focus Coupled to Ventricular Cells. Circulation, 1996, 94, 833-841.	1.6	28
95	Effects of cGMP-dependent phosphorylation on rat and human connexin43 gap junction channels. Pflugers Archiv European Journal of Physiology, 1995, 430, 770-778.	1.3	95