Niels Voigt

List of Publications by Year
in descending order

102 papers	7,386 citations	76326 40 h-index	54911 84 g-index
109 all docs	109 docs citations	109 times ranked	5812 citing authors

#	Article	IF	Citations
1	Cellular and Molecular Electrophysiology of Atrial Fibrillation Initiation, Maintenance, and Progression. Circulation Research, 2014, 114, 1483-1499.	4.5	530
2	Enhanced Sarcoplasmic Reticulum Ca ²⁺ Leak and Increased Na ⁺ -Ca ²⁺ Exchanger Function Underlie Delayed Afterdepolarizations in Patients With Chronic Atrial Fibrillation. Circulation, 2012, 125, 2059-2070.	1.6	523
3	Recent advances in the molecular pathophysiology of atrial fibrillation. Journal of Clinical Investigation, 2011, 121, 2955-2968.	8.2	480
4	The G Proteinâ€"Gated Potassium Current <i>I</i> _{K,ACh} Is Constitutively Active in Patients With Chronic Atrial Fibrillation. Circulation, 2005, 112, 3697-3706.	1.6	413
5	Cellular and Molecular Mechanisms of Atrial Arrhythmogenesis in Patients With Paroxysmal Atrial Fibrillation. Circulation, 2014, 129, 145-156.	1.6	386
6	Human Atrial Action Potential and Ca ²⁺ Model. Circulation Research, 2011, 109, 1055-1066.	4.5	368
7	Oxidized Ca ²⁺ /Calmodulin-Dependent Protein Kinase II Triggers Atrial Fibrillation. Circulation, 2013, 128, 1748-1757.	1.6	256
8	Transient Receptor Potential Canonical-3 Channelâ€"Dependent Fibroblast Regulation in Atrial Fibrillation. Circulation, 2012, 126, 2051-2064.	1.6	228
9	MicroRNA29. Circulation, 2013, 127, 1466-1475.	1.6	222
10	Left-to-Right Atrial Inward Rectifier Potassium Current Gradients in Patients With Paroxysmal Versus Chronic Atrial Fibrillation. Circulation: Arrhythmia and Electrophysiology, 2010, 3, 472-480.	4.8	204
11	Oxidized CaMKII causes cardiac sinus node dysfunction in mice. Journal of Clinical Investigation, 2011, 121, 3277-3288.	8.2	193
12	Role of RyR2 Phosphorylation at S2814 During Heart Failure Progression. Circulation Research, 2012, 110, 1474-1483.	4.5	187
13	Upregulation of K _{2P} 3.1 K ⁺ Current Causes Action Potential Shortening in Patients With Chronic Atrial Fibrillation. Circulation, 2015, 132, 82-92.	1.6	172
14	The value of basic research insights into atrial fibrillation mechanisms as a guide to therapeutic innovation: a critical analysis. Cardiovascular Research, 2016, 109, 467-479.	3.8	166
15	Mutation E169K in Junctophilin-2 Causes Atrial Fibrillation Due to Impaired RyR2 Stabilization. Journal of the American College of Cardiology, 2013, 62, 2010-2019.	2.8	165
16	Ryanodine Receptorâ€"Mediated Calcium Leak Drives Progressive Development of an Atrial Fibrillation Substrate in a Transgenic Mouse Model. Circulation, 2014, 129, 1276-1285.	1.6	160
17	Inhibition of CaMKII Phosphorylation of RyR2 Prevents Induction of Atrial Fibrillation in FKBP12.6 Knockout Mice. Circulation Research, 2012, 110, 465-470.	4.5	140
18	Tachycardia-induced silencing of subcellular Ca2+ signaling in atrial myocytes. Journal of Clinical Investigation, 2014, 124, 4759-4772.	8.2	114

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19	Multiple Potential Molecular Contributors to Atrial Hypocontractility Caused by Atrial Tachycardia Remodeling in Dogs. Circulation: Arrhythmia and Electrophysiology, 2010, 3, 530-541.	4.8	112
20	Differential phosphorylation-dependent regulation of constitutively active and muscarinic receptor-activated IK,ACh channels in patients with chronic atrial fibrillation. Cardiovascular Research, 2007, 74, 426-437.	3.8	110
21	Pathologyâ€specific effects of the <i>I</i>_{Kur}/<i>I</i>_{to}/<i>I</i>_{K,ACh} blocker AVE0118 on ion channels in human chronic atrial fibrillation. British Journal of Pharmacology, 2008, 154, 1619-1630.	5.4	106
22	Defects in Ankyrin-Based Membrane Protein Targeting Pathways Underlie Atrial Fibrillation. Circulation, 2011, 124, 1212-1222.	1.6	102
23	Loss of MicroRNA-106b-25 Cluster Promotes Atrial Fibrillation by Enhancing Ryanodine Receptor Type-2 Expression and Calcium Release. Circulation: Arrhythmia and Electrophysiology, 2014, 7, 1214-1222.	4.8	101
24	The ryanodine receptor channel as a molecular motif in atrial fibrillation: pathophysiological and therapeutic implications. Cardiovascular Research, 2011, 89, 734-743.	3.8	98
25	Differential Protein Kinase C Isoform Regulation and Increased Constitutive Activity of Acetylcholine-Regulated Potassium Channels in Atrial Remodeling. Circulation Research, 2011, 109, 1031-1043.	4.5	93
26	Changes in IK,ACh single-channel activity with atrial tachycardia remodelling in canine atrial cardiomyocytes. Cardiovascular Research, 2007, 77, 35-43.	3.8	91
27	NSC23766, a Widely Used Inhibitor of Rac1 Activation, Additionally Acts as a Competitive Antagonist at Muscarinic Acetylcholine Receptors. Journal of Pharmacology and Experimental Therapeutics, 2013, 347, 69-79.	2.5	75
28	Atrial Fibrillation Activates AMP-Dependent Protein Kinase and its Regulation of Cellular Calcium Handling. Journal of the American College of Cardiology, 2015, 66, 47-58.	2.8	75
29	Inverse remodelling of K_{2P}3.1 K⁺channel expression and action potential duration in left ventricular dysfunction and atrial fibrillation: implications for patient-specific antiarrhythmic drug therapy. European Heart Journal, 2017, 38, ehw559.	2.2	74
30	Cellular and mitochondrial mechanisms of atrial fibrillation. Basic Research in Cardiology, 2020, 115, 72.	5.9	62
31	Ca ²⁺ -Related Signaling and Protein Phosphorylation Abnormalities Play Central Roles in a New Experimental Model of Electrical Storm. Circulation, 2011, 123, 2192-2203.	1.6	57
32	Impaired local regulation of ryanodine receptor type 2 by protein phosphatase 1 promotes atrial fibrillation. Cardiovascular Research, 2014, 103, 178-187.	3.8	56
33	Dysfunction in the Î²II Spectrinâ€“Dependent Cytoskeleton Underlies Human Arrhythmia. Circulation, 2015, 131, 695-708.	1.6	56
34	Calcium dysregulation in atrial fibrillation: the role of CaMKII. Frontiers in Pharmacology, 2014, 5, 30.	3.5	55
35	Computational models of atrial cellular electrophysiology and calcium handling, and their role in atrial fibrillation. Journal of Physiology, 2016, 594, 537-553.	2.9	54
36	Inhibition of IK,ACh current may contribute to clinical efficacy of class I and class III antiarrhythmic drugs in patients with atrial fibrillation. Naunyn-Schmiedeberg's Archives of Pharmacology, 2010, 381, 251-259.	3.0	49

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37	New directions in antiarrhythmic drug therapy for atrial fibrillation. Future Cardiology, 2013, 9, 71-88.	1.2	47
38	Cardiac safety assays. Current Opinion in Pharmacology, 2014, 15, 16-21.	3.5	46
39	Identification of microRNAâ€“mRNA dysregulations in paroxysmal atrial fibrillation. International Journal of Cardiology, 2015, 184, 190-197.	1.7	46
40	Altered atrial cytosolic calcium handling contributes to the development of postoperative atrial fibrillation. Cardiovascular Research, 2021, 117, 1790-1801.	3.8	45
41	Regenerative potential of epicardium-derived extracellular vesicles mediated by conserved miRNA transfer. Cardiovascular Research, 2022, 118, 597-611.	3.8	41
42	Constitutive Activity of the Acetylcholine-Activated Potassium Current IK,ACh in Cardiomyocytes. Advances in Pharmacology, 2014, 70, 393-409.	2.0	39
43	Impaired Na+-dependent regulation of acetylcholine-activated inward-rectifier K+ current modulates action potential rate dependence in patients with chronic atrial fibrillation. Journal of Molecular and Cellular Cardiology, 2013, 61, 142-152.	1.9	38
44	Alterations in the Interactome of Serine/Threonine Protein Phosphatase Type-1 in Atrial Fibrillation Patients. Journal of the American College of Cardiology, 2015, 65, 163-173.	2.8	38
45	<i>S</i> â€glutathiolation impairs phosphoregulation and function of cardiac myosinâ€binding protein C in human heart failure. FASEB Journal, 2016, 30, 1849-1864.	0.5	38
46	Stretch-activated two-pore-domain (K2P) potassium channels in the heart: Focus on atrial fibrillation and heart failure. Progress in Biophysics and Molecular Biology, 2017, 130, 233-243.	2.9	37
47	Axial Tubule Junctions Activate Atrial Ca2+ Release Across Species. Frontiers in Physiology, 2018, 9, 1227.	2.8	36
48	Expression and function of Kv1.1 potassium channels in human atria from patients with atrial fibrillation. Basic Research in Cardiology, 2015, 110, 505.	5.9	35
49	Atrial fibrillation and heart failure-associated remodeling of two-pore-domain potassium (K2P) channels in murine disease models: focus on TASK-1. Basic Research in Cardiology, 2018, 113, 27.	5.9	33
50	Sarcoplasmic reticulum calcium leak contributes to arrhythmia but not to heart failure progression. Science Translational Medicine, 2018, 10, .	12.4	30
51	Atrial-Selective Potassium Channel Blockers. Cardiac Electrophysiology Clinics, 2016, 8, 411-421.	1.7	29
52	German Cardiac Society Working Group on Cellular Electrophysiology state-of-the-art paper: impact of molecular mechanisms on clinical arrhythmia management. Clinical Research in Cardiology, 2019, 108, 577-599.	3.3	27
53	Methods for isolating atrial cells from large mammals and humans. Journal of Molecular and Cellular Cardiology, 2015, 86, 187-198.	1.9	26
54	Calcium handling and atrial fibrillation. Wiener Medizinische Wochenschrift, 2012, 162, 287-291.	1.1	25

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55	Nucleoside Diphosphate Kinase-C Suppresses cAMP Formation in Human Heart Failure. Circulation, 2017, 135, 881-897.	1.6	24
56	Isolation of Human Atrial Myocytes for Simultaneous Measurements of Ca²⁺ Transients and Membrane Currents. Journal of Visualized Experiments, 2013, , e50235.	0.3	23
57	Dysfunction of the Î²₂-spectrin-based pathway in human heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1583-H1591.	3.2	23
58	CaMKII activity contributes to homeometric autoregulation of the heart: A novel mechanism for the Anrep effect. Journal of Physiology, 2020, 598, 3129-3153.	2.9	23
59	Muscarinic type-1 receptors contribute to I K,ACh in human atrial cardiomyocytes and are upregulated in patients with chronic atrial fibrillation. International Journal of Cardiology, 2018, 255, 61-68.	1.7	22
60	Application of the RIMARC algorithm to a large data set of action potentials and clinical parameters for risk prediction of atrial fibrillation. Medical and Biological Engineering and Computing, 2015, 53, 263-273.	2.8	21
61	The inward rectifier current inhibitor PAâ€6 terminates atrial fibrillation and does not cause ventricular arrhythmias in goat and dog models. British Journal of Pharmacology, 2017, 174, 2576-2590.	5.4	20
62	The combined effects of ranolazine and dronedarone on human atrial and ventricular electrophysiology. Journal of Molecular and Cellular Cardiology, 2016, 94, 95-106.	1.9	18
63	Voltage-Clamp-Based Methods for the Detection of Constitutively Active Acetylcholine-Gated IK,ACh Channels in the Diseased Heart. Methods in Enzymology, 2010, 484, 653-675.	1.0	17
64	Caveolin3 Stabilizes McT1-Mediated Lactate/Proton Transport in Cardiomyocytes. Circulation Research, 2021, 128, e102-e120.	4.5	16
65	Calcium Handling Abnormalities as a Target for Atrial Fibrillation Therapeutics. Journal of Cardiovascular Pharmacology, 2015, 66, 515-522.	1.9	15
66	Cellular and molecular correlates of ectopic activity in patients with atrial fibrillation. Europace, 2012, 14, v97-v105.	1.7	14
67	Increased cytosolic calcium buffering contributes to a cellular arrhythmogenic substrate in iPSC-cardiomyocytes from patients with dilated cardiomyopathy. Basic Research in Cardiology, 2022, 117, 5.	5.9	14
68	Proarrhythmic Atrial Calcium Cycling in the Diseased Heart. Advances in Experimental Medicine and Biology, 2012, 740, 1175-1191.	1.6	13
69	Ion Channel Remodelling in Atrial Fibrillation. European Cardiology Review, 2011, 7, 97.	2.2	13
70	Finding Ms or Mr Right: Which miRNA to target in AF?. Journal of Molecular and Cellular Cardiology, 2017, 102, 22-25.	1.9	12
71	Rhythm Control of Atrial Fibrillation in Heart Failure. Heart Failure Clinics, 2013, 9, 407-415.	2.1	10
72	Chromatin Accessibility of Human Mitral Valves and Functional Assessment of MVP Risk Loci. Circulation Research, 2021, 128, e84-e101.	4.5	10

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73	N-glycosylationâ€“dependent regulation of hK2P17.1 currents. Molecular Biology of the Cell, 2019, 30, 1425-1436.	2.1	8
74	Connexin hemichannels in atrial fibrillation: orphaned and irrelevant?. Cardiovascular Research, 2021, 117, 4-6.	3.8	7
75	Kv1.1 potassium channel subunit deficiency alters ventricular arrhythmia susceptibility, contractility, and repolarization. Physiological Reports, 2021, 9, e14702.	1.7	7
76	Dysferlin links excitationâ€“contraction coupling to structure and maintenance of the cardiac transverseâ€“axial tubule system. Europace, 2020, 22, 1119-1131.	1.7	6
77	A junctional cAMP compartment regulates rapid Ca2+ signaling in atrial myocytes. Journal of Molecular and Cellular Cardiology, 2022, 165, 141-157.	1.9	6
78	Adventures and Advances in Time Travel With Induced Pluripotent Stem Cells and Automated Patch Clamp. Frontiers in Molecular Neuroscience, 0, 15, .	2.9	6
79	Response to Letter Regarding Article, â€œUpregulation of K _{2P} 3.1 K ⁺ Current Causes Action Potential Shortening in Patients With Chronic Atrial Fibrillationâ€• Circulation, 2016, 133, e440-1.	1.6	5
80	In search for novel functions of adenosine 5â€²-triphosphate (ATP) in the heart. Cardiovascular Research, 2017, 113, e59-e60.	3.8	5
81	Scientists on the Spot: Autophagy and heart disease. Cardiovascular Research, 2019, 115, e91-e92.	3.8	5
82	New antiarrhythmic targets in atrial fibrillation. Future Cardiology, 2015, 11, 645-654.	1.2	4
83	The biology of human pulmonary veins: Does it help us to better understand AF pathophysiology in patients?. Heart Rhythm, 2013, 10, 392-393.	0.7	3
84	ESC Congress 2018 highlights in basic science: a report from the Scientists of Tomorrow. Cardiovascular Research, 2018, 114, e103-e105.	3.8	3
85	Personalization of Mathematical Models of Human Atrial Action Potential. Smart Innovation, Systems and Technologies, 2021, , 223-236.	0.6	2
86	Single-Cell Optical Action Potential Measurement in Human Induced Pluripotent Stem Cell-Derived Cardiomyocytes. Journal of Visualized Experiments, 2020, , .	0.3	2
87	The Molecular Pathophysiology of Atrial Fibrillation. , 2014, , 449-458.		1
88	Report on the Ion Channel Symposium. Herzschrittmachertherapie Und Elektrophysiologie, 2018, 29, 4-13.	0.8	1
89	The Molecular Pathophysiology of Atrial Fibrillation. , 2018, , 396-408.		1
90	Voltage-Gated Calcium Channels and Their Roles in Cardiac Electrophysiology. Cardiac and Vascular Biology, 2018, , 77-96.	0.2	1

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91	OUP accepted manuscript. Cardiovascular Research, 2022, , .	3.8	1
92	A Mathematical Model for Electrical Activity in Pig Atrial Tissue. Frontiers in Physiology, 2022, 13, 812535.	2.8	1
93	Background calcium influx in arrhythmia: lead actor or extra?. Journal of Physiology, 2022, 600, 2545-2546.	2.9	1
94	Models of Human Atrial Action Potential for Sinus Rhythm and Chronic Atrial Fibrillation. Biophysical Journal, 2011, 100, 436a.	0.5	0
95	GW25-e5168 Impaired Post-Transcriptional Regulation of RyR2 by microRNA-106b-25 Cluster Promotes Atrial Fibrillation. Journal of the American College of Cardiology, 2014, 64, C59.	2.8	0
96	Ryanodine receptor dysfunction and the resolution revolution: how Nobel Prize-winning techniques transform cardiovascular research. Cardiovascular Research, 2018, 114, e106-e109.	3.8	0
97	Niels Voigt talks to W. Jonathan Lederer, keynote lecturer at the â€œGÃ¶ttingen Channelsâ€•Symposium 2017. Cardiovascular Research, 2018, 114, e14-e14.	3.8	0
98	Prof Niels Voigt talks to Prof Stanley Nattel about advances in atrial fibrillation research and career insights. Cardiovascular Research, 2018, 114, e65-e65.	3.8	0
99	Insights into cardiovascular research in GÃ¶ttingen and Heidelberg: a report by the ESC Scientists of Tomorrow. Cardiovascular Research, 2020, 116, e162-e164.	3.8	0
100	Cholinergic and Constitutive Regulation of Atrial Potassium Channel. , 2014, , 383-391.		0
101	Isolation of High Quality Murine Atrial and Ventricular Myocytes for Simultaneous Measurements of Ca²⁺ Transients and L-Type Calcium Current. Journal of Visualized Experiments, 2020, , .	0.3	0
102	PO-615-02 MIR-144 KNOCKOUT LEADS TO INCREASED ARRHYTHMOGENICITY ASSOCIATED WITH IMPAIRED ATRIAL CALCIUM-HANDLING. Heart Rhythm, 2022, 19, S107.	0.7	0