Halina Halina Dobrzynski

List of Publications by Year
in descending order

124 papers	6,098 citations	76031 42 h-index	87275 74 g-index
128 all docs	128 docs citations	128 times ranked	5144 citing authors

#	Article	IF	Citations
1	Inflammatory degranulation of the cardiac resident mast cells suppresses the pacemaking and affects activation pattern in the sinoatrial node. Translational Research in Anatomy, 2022, 26, 100170.	0.3	0
2	Editorial: Vascular Disease Multi-Scale Multi-Physics Modeling and Experimental Data. Frontiers in Physiology, 2022, 13, 865905.	1.3	0
3	Novel micro-computed tomography contrast agents to visualise the human cardiac conduction system and surrounding structures in hearts from normal, aged, and obese individuals. Translational Research in Anatomy, 2022, 27, 100175.	0.3	1
4	A circadian clock in the sinus node mediates day-night rhythms in Hcn4 and heart rate. Heart Rhythm, 2021, 18, 801-810.	0.3	46
5	Attenuation of inward rectifier potassium current contributes to the Î±1â€adrenergic receptorâ€induced proarrhythmicity in the caval vein myocardium. Acta Physiologica, 2021, 231, e13597.	1.8	10
6	RNAseq shows an all-pervasive day-night rhythm in the transcriptome of the pacemaker of the heart. Scientific Reports, 2021, 11, 3565.	1.6	11
7	Structural and Functional Properties of Subsidiary Atrial Pacemakers in a Goat Model of Sinus Node Disease. Frontiers in Physiology, 2021, 12, 592229.	1.3	7
8	Common arterial trunk in a cat: a high-resolution morphological analysis with micro-computed tomography. Journal of Veterinary Cardiology, 2021, 34, 8-15.	0.3	3
9	Conserved Role of the Large Conductance Calcium-Activated Potassium Channel, K _{Ca} 1.1, in Sinus Node Function and Arrhythmia Risk. Circulation Genomic and Precision Medicine, 2021, 14, e003144.	1.6	14
10	Intrinsic Electrical Remodeling Underlies Atrioventricular Block in Athletes. Circulation Research, 2021, 129, e1-e20.	2.0	23
11	Further insights into the molecular complexity of the human sinus node â€“ The role of â€˜novelâ€™ transcription factors and microRNAs. Progress in Biophysics and Molecular Biology, 2021, 166, 86-104.	1.4	11
12	Repolarizing potassium currents in working myocardium of Japanese quail: a novel translational model for cardiac electrophysiology. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2021, 255, 110919.	0.8	8
13	The clinical anatomy of the left atrial structures used as landmarks in ablation of arrhythmogenic substrates and cardiac invasive procedures. Translational Research in Anatomy, 2021, 23, 100102.	0.3	11
14	Remodeling of the Purkinje Network in Congestive Heart Failure in the Rabbit. Circulation: Heart Failure, 2021, 14, e007505.	1.6	11
15	Altered microRNA and mRNA profiles during heart failure in the human sinoatrial node. Scientific Reports, 2021, 11, 19328.	1.6	12
16	Micro-RNA 133a-3p induces repolarization abnormalities in atrial myocardium and modulates ventricular electrophysiology affecting ICa,L and Ito currents. European Journal of Pharmacology, 2021, 908, 174369.	1.7	5
17	Do human sinoatrial node cells have t-tubules?. Translational Research in Anatomy, 2021, 25, 100131.	0.3	0
18	MiR-486-3p and MiR-938â€”Important Inhibitors of Pacemaking Ion Channels and/or Markers of Immune Cells. Applied Sciences (Switzerland), 2021, 11, 11366.	1.3	2

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19	Identification of Key Small Nonâ€Coding MicroRNAs Controlling Pacemaker Mechanisms in the Human Sinus Node. Journal of the American Heart Association, 2020, 9, e016590.	1.6	17
20	Silencing miR-370-3p rescues funny current and sinus node function in heart failure. Scientific Reports, 2020, 10, 11279.	1.6	30
21	Impaired neuronal sodium channels cause intranodal conduction failure and reentrant arrhythmias in human sinoatrial node. Nature Communications, 2020, 11, 512.	5.8	39
22	Supraventricular Arrhythmias in Athletes: Basic Mechanisms and New Directions. Physiology, 2019, 34, 314-326.	1.6	11
23	Sinus node-like pacemaker mechanisms regulate ectopic pacemaker activity in the adult rat atrioventricular ring. Scientific Reports, 2019, 9, 11781.	1.6	10
24	Electrical Conduction System Remodeling in Streptozotocin-Induced Diabetes Mellitus Rat Heart. Frontiers in Physiology, 2019, 10, 826.	1.3	24
25	Mechanistic insights from targeted molecular profiling of repolarization alternans in the intact human heart. Europace, 2019, 21, 981-989.	0.7	11
26	Circadian rhythm of cardiac electrophysiology, arrhythmogenesis, and the underlying mechanisms. Heart Rhythm, 2019, 16, 298-307.	0.3	118
27	A sexy approach to pacemaking: differences in function and molecular make up of the sinoatrial node. Histology and Histopathology, 2019, 34, 1255-1268.	0.5	5
28	Structural and functional remodeling of the atrioventricular node with aging in rats: The role of hyperpolarization-activated cyclic nucleotideâ€"gated and ryanodine 2 channels. Heart Rhythm, 2018, 15, 752-760.	0.3	23
29	The Pattern of mRNA Expression Is Changed in Sinoatrial Node from Goto-Kakizaki Type 2 Diabetic Rat Heart. Journal of Diabetes Research, 2018, 2018, 1-12.	1.0	15
30	TBX18 overexpression enhances pacemaker function in a rat subsidiary atrial pacemaker model of sick sinus syndrome. Journal of Physiology, 2018, 596, 6141-6155.	1.3	20
31	3D Ultrastructure of the â€œArrhythmogenicâ€•Purkinje Fibre-ventricular Junction in Rabbit Hearts. European Cardiology Review, 2018, 13, 122.	0.7	0
32	A Sexy Approach to Pacemaking. Biophysical Journal, 2017, 112, 403a.	0.2	0
33	Simulation of ventricular rate control during atrial fibrillation using ionic channel blockers. Journal of Arrhythmia, 2017, 33, 302-309.	0.5	7
34	Mechanism underlying impaired cardiac pacemaking rhythm during ischemia: A simulation study. Chaos, 2017, 27, 093934.	1.0	10
35	Targeting miR-423-5p Reverses Exercise Trainingâ€"Induced HCN4 Channel Remodeling and Sinus Bradycardia. Circulation Research, 2017, 121, 1058-1068.	2.0	76
36	Altered profile of mRNA expression in atrioventricular node of streptozotocin-induced diabetic rats. Molecular Medicine Reports, 2017, 16, 3720-3730.	1.1	7

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37	High resolution 3-Dimensional imaging of the human cardiac conduction system from microanatomy to mathematical modeling. Scientific Reports, 2017, 7, 7188.	1.6	104
38	Computational assessment of the functional role of sinoatrial node exit pathways in the human heart. PLoS ONE, 2017, 12, e0183727.	1.1	32
39	Ca2+-Clock-Dependent Pacemaking in the Sinus Node Is Impaired in Mice with a Cardiac Specific Reduction in SERCA2 Abundance. Frontiers in Physiology, 2016, 7, 197.	1.3	15
40	3D anatomical reconstruction of human cardiac conduction system and simulation of bundle branch block after TAVI procedure. , 2016, 2016, 5583-5586.		3
41	Expression of connexin 43, ion channels and Ca2+-handling proteins in rat pulmonary vein cardiomyocytes. Experimental and Therapeutic Medicine, 2016, 12, 3233-3241.	0.8	7
42	Atrioventricular Node Dysfunction and Ion Channel Transcriptome in Pulmonary Hypertension. Circulation: Arrhythmia and Electrophysiology, 2016, 9, .	2.1	22
43	Insights from echocardiography, magnetic resonance imaging, and microcomputed tomography relative to the midâ€myocardial left ventricular echogenic zone. Echocardiography, 2016, 33, 1546-1556.	0.3	19
44	Different Profile of mRNA Expression in Sinoatrial Node from Streptozotocin-Induced Diabetic Rat. PLoS ONE, 2016, 11, e0153934.	1.1	22
45	Morphological characteristics of the sinus node on postmortem tissue. Folia Morphologica, 2016, 75, 216-223.	0.4	4
46	From the Purkinje fibres to the ventricle: One dimensional computer simulation for the healthy and failing heart. , 2015, 2015, 34-7.		3
47	YIA1â€...TBX18 Biopacemaking Improves Beating Rate and Alters Gene Expression in Bradycardic Subsidiary Right Atrial Pacemaker Tissue. Heart, 2015, 101, A121.3-A123.	1.2	0
48	Molecular Mapping of Sinoatrial Node HCN Channel Expression in the Human Heart. Circulation: Arrhythmia and Electrophysiology, 2015, 8, 1219-1227.	2.1	72
49	Congestive Heart Failure Leads to Prolongation of the PR Interval and Atrioventricular Junction Enlargement and Ion Channel Remodelling in the Rabbit. PLoS ONE, 2015, 10, e0141452.	1.1	26
50	Comparison of formaldehyde and methanol fixatives used in the detection of ion channel proteins in isolated rat ventricular myocytes by immunofluorescence labelling and confocal microscopy. Folia Morphologica, 2015, 74, 258-261.	0.4	1
51	Funny current and sudden cardiac death. Romanian Journal of Legal Medicine, 2015, 23, 95-100.	0.3	0
52	Abstract 18171: HCN Channel Distribution in the Human Sinoatrial Node and Latent Atrial Pacemakers <i>(Best of Basic Science Abstract)</i>. Circulation, 2015, 132, .	1.6	0
53	Importance of Gradients in Membrane Properties and Electrical Coupling in Sinoatrial Node Pacing. PLoS ONE, 2014, 9, e94565.	1.1	39
54	Three-Dimensional Computer Model of the Right Atrium Including the Sinoatrial and Atrioventricular Nodes Predicts Classical Nodal Behaviours. PLoS ONE, 2014, 9, e112547.	1.1	20

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55	160â€¦Arrhythmia and Heart Failure Substrates in the Right Ventricular Outflow Tract of Adults with Surgically Repaired Tetralogy of Fallot. Heart, 2014, 100, A92.2-A92.	1.2	0
56	161â€¦ Novel Immunohistochemical and Structural Features of Subsidiary Atrial Pacemakers in the Goat; Relevance to Potential Sites for Biological Pacemakers. Heart, 2014, 100, A92.3-A93.	1.2	1
57	63 * Ageing is associated with myocardial disarray, changes in the expression of ion channels, gap junction proteins and Ca2+ handling proteins with in the atrioventricular conduction axis. Europace, 2014, 16, iii24-iii24.	0.7	0
58	Chronic effects of mild hyperglycaemia on left ventricle transcriptional profile and structural remodelling in the spontaneously type 2 diabetic Goto-Kakizaki rat. Heart Failure Reviews, 2014, 19, 65-74.	1.7	30
59	Developing a novel comprehensive framework for the investigation of cellular and whole heart electrophysiology in the in situ human heart: Historical perspectives, current progress and future prospects. Progress in Biophysics and Molecular Biology, 2014, 115, 252-260.	1.4	34
60	O020 Novel role for the large-conductance Ca2+-activated K+ channel (BKCa) as a determinant of cardiac function. , 2014, 9, e5-e6.		0
61	Ivabradine Protects Against Ventricular Arrhythmias in Acute Myocardial Infarction in the Rat. Journal of Cellular Physiology, 2014, 229, 813-823.	2.0	31
62	Molecular Basis of Arrhythmias Associated with the Cardiac Conduction System. , 2014, , 19-34.		3
63	Structural and functional alterations in the atrioventricular node and atrioventricular ring tissue in ischaemia-induced heart failure. Histology and Histopathology, 2014, 29, 891-902.	0.5	5
64	The Anatomy of the Conduction System: Implications for the Clinical Cardiologist. Journal of Cardiovascular Translational Research, 2013, 6, 187-196.	1.1	35
65	Connexins and the atrioventricular node. Heart Rhythm, 2013, 10, 297-304.	0.3	70
66	Structure, function and clinical relevance of the cardiac conduction system, including the atrioventricular ring and outflow tract tissues. , 2013, 139, 260-288.		156
67	Simulation study of complex action potential conduction in atrioventricular node. , 2013, 2013, 6850-3.		3
68	Characterization of a right atrial subsidiary pacemaker and acceleration of the pacing rate by HCN over-expression. Cardiovascular Research, 2013, 100, 160-169.	1.8	23
69	Viewpoint: Is the resting bradycardia in athletes the result of remodeling of the sinoatrial node rather than high vagal tone?. Journal of Applied Physiology, 2013, 114, 1351-1355.	1.2	64
70	Functional, Anatomical, and Molecular Investigation of the Cardiac Conduction System and Arrhythmogenic Atrioventricular Ring Tissue in the Rat Heart. Journal of the American Heart Association, 2013, 2, e000246.	1.6	50
71	Reply to Matelot, Schnell, Kervio, Thillaye du Boullay, and Carre. Journal of Applied Physiology, 2013, 114, 1757-1757.	1.2	0
72	Visualization and quantification of whole rat heart laminar structure using high-spatial resolution contrast-enhanced MRI. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H287-H298.	1.5	68

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73	Epistatic Rescue of Nkx2.5 Adult Cardiac Conduction Disease Phenotypes by Prospero-Related Homeobox Protein 1 and HDAC3. Circulation Research, 2012, 111, e19-31.	2.0	32
74	Postnatal development of transmural gradients in expression of ion channels and Ca2+-handling proteins in the ventricle. Journal of Molecular and Cellular Cardiology, 2012, 53, 145-155.	0.9	17
75	Molecular architecture of the human specialised atrioventricular conduction axis. Journal of Molecular and Cellular Cardiology, 2011, 50, 642-651.	0.9	97
76	Anatomical and molecular mapping of the left and right ventricular Hisâ€œPurkinje conduction networks. Journal of Molecular and Cellular Cardiology, 2011, 51, 689-701.	0.9	85
77	Changes in the expression of ion channels, connexins and Ca2+-handling proteins in the sino-atrial node during postnatal development. Experimental Physiology, 2011, 96, 426-438.	0.9	17
78	Ageing-dependent remodelling of ion channel and Ca²⁺clock genes underlying sino-atrial node pacemaking. Experimental Physiology, 2011, 96, 1163-1178.	0.9	92
79	3D virtual human atria: A computational platform for studying clinical atrial fibrillation. Progress in Biophysics and Molecular Biology, 2011, 107, 156-168.	1.4	143
80	Computer Threeâ€Dimensional Anatomical Reconstruction of the Human Sinus Node and a Novel Paranodal Area. Anatomical Record, 2011, 294, 970-979.	0.8	89
81	Changes in Ion Channel Gene Expression Underlying Heart Failure-Induced Sinoatrial Node Dysfunction. Circulation: Heart Failure, 2011, 4, 496-508.	1.6	52
82	TGF-Î² ₁ -Mediated Fibrosis and Ion Channel Remodeling Are Key Mechanisms in Producing the Sinus Node Dysfunction Associated With <i>SCN5A</i> Deficiency and Aging. Circulation: Arrhythmia and Electrophysiology, 2011, 4, 397-406.	2.1	99
83	Molecular Basis of the Electrical Activity of the Atrioventricular Junction and Purkinje Fibres. , 2011, , 211-230.		1
84	The Anatomy and Physiology of the Sinoatrial Node-A Contemporary Review. PACE - Pacing and Clinical Electrophysiology, 2010, 33, 1392-1406.	0.5	166
85	Structural remodelling of the sinoatrial node in obese old rats. Journal of Molecular and Cellular Cardiology, 2010, 48, 653-662.	0.9	82
86	Molecular Architecture of the Human Sinus Node. Circulation, 2009, 119, 1562-1575.	1.6	344
87	Ion Channel Transcript Expression at the Rabbit Atrioventricular Conduction Axis. Circulation: Arrhythmia and Electrophysiology, 2009, 2, 305-315.	2.1	41
88	The anatomy of the cardiac conduction system. Clinical Anatomy, 2009, 22, 99-113.	1.5	175
89	P2 purinergic receptor mRNA in rat and human sinoatrial node and other heart regions. Naunyn-Schmiedeberg's Archives of Pharmacology, 2009, 379, 541-549.	1.4	45
90	Human connexin31.9, unlike its orthologous protein connexin30.2 in the mouse, is not detectable in the human cardiac conduction system. Journal of Molecular and Cellular Cardiology, 2009, 46, 553-559.	0.9	41

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91	Distribution of the pacemaker HCN4 channel mRNA and protein in the rabbit sinoatrial node. Journal of Molecular and Cellular Cardiology, 2009, 47, 221-227.	0.9	79
92	Mechanisms of Transition from Normal to Reentrant Electrical Activity in a Model of Rabbit Atrial Tissue: Interaction of Tissue Heterogeneity and Anisotropy. Biophysical Journal, 2009, 96, 798-817.	0.2	67
93	The extent of the specialized atrioventricular ring tissues. Heart Rhythm, 2009, 6, 672-680.	0.3	112
94	Effects of streptozotocin-induced diabetes on connexin43 mRNA and protein expression in ventricular muscle. Molecular and Cellular Biochemistry, 2008, 319, 105-114.	1.4	41
95	Characterization of the effects of Ryanodine, TTX, E-4031 and 4-AP on the sinoatrial and atrioventricular nodes. Progress in Biophysics and Molecular Biology, 2008, 96, 452-464.	1.4	29
96	Role of pacemaking current in cardiac nodes: Insights from a comparative study of sinoatrial node and atrioventricular node. Progress in Biophysics and Molecular Biology, 2008, 96, 294-304.	1.4	49
97	Sarcolemmal Ca2+-ATPase ability to transport Ca2+ gradually diminishes after myocardial infarction in the rat. Cardiovascular Research, 2008, 81, 546-554.	1.8	21
98	Computer Three-Dimensional Reconstruction of the Atrioventricular Node. Circulation Research, 2008, 102, 975-985.	2.0	106
99	The Sinoatrial Node Is Still Setting the Pace 100 Years After its Discovery. Circulation Research, 2007, 100, 1543-1545.	2.0	18
100	Organisation of the mouse sinoatrial node: structure and expression of HCN channels. Cardiovascular Research, 2007, 73, 729-738.	1.8	153
101	New Insights Into Pacemaker Activity. Circulation, 2007, 115, 1921-1932.	1.6	396
102	Calcium Cycling Protein Density and Functional Importance to Automaticity of Isolated Sinoatrial Nodal Cells Are Independent of Cell Size. Circulation Research, 2007, 100, 1723-1731.	2.0	95
103	Expression of Kir2.1 and Kir6.2 transgenes under the control of the Î±-MHC promoter in the sinoatrial and atrioventricular nodes in transgenic mice. Journal of Molecular and Cellular Cardiology, 2006, 41, 855-867.	0.9	14
104	What do we learn from double Cx40/Cx45-deficient mice about cardiac morphogenetic defects and conduction abnormalities?. Journal of Molecular and Cellular Cardiology, 2006, 41, 774-777.	0.9	4
105	Extended atrial conduction system characterised by the expression of the HCN4 channel and connexin45. Cardiovascular Research, 2006, 72, 271-281.	1.8	94
106	Postganglionic nerve stimulation induces temporal inhibition of excitability in rabbit sinoatrial node. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 291, H612-H623.	1.5	68
107	Differential Expression of Ion Channel Transcripts in Atrial Muscle and Sinoatrial Node in Rabbit. Circulation Research, 2006, 99, 1384-1393.	2.0	134
108	Distribution and Functional Characterization of Equilibrative Nucleoside Transporter-4, a Novel Cardiac Adenosine Transporter Activated at Acidic pH. Circulation Research, 2006, 99, 510-519.	2.0	181

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109	Localization of Na + Channel Isoforms at the Atrioventricular Junction and Atrioventricular Node in the Rat. Circulation, 2006, 114, 1360-1371.	1.6	65
110	Imaging the heart: computer 3-dimensional anatomic models of the heart. Journal of Electrocardiology, 2005, 38, 113-120.	0.4	22
111	Computer Three-Dimensional Reconstruction of the Sinoatrial Node. Circulation, 2005, 111, 846-854.	1.6	163
112	Distribution of atrial natriuretic peptide and its effects on contraction and intracellular calcium in ventricular myocytes from streptozotocin-induced diabetic rat. Peptides, 2005, 26, 691-700.	1.2	16
113	Requirement of neuronal- and cardiac-type sodium channels for murine sinoatrial node pacemaking. Journal of Physiology, 2004, 559, 835-848.	1.3	174
114	Structure-function relationship in the AV junction. The Anatomical Record, 2004, 280A, 952-965.	2.3	65
115	Cellular Mechanisms of Sinoatrial Activity. , 2004, , 192-202.		6
116	Sophisticated Architecture is Required for the Sinoatrial Node to Perform Its Normal Pacemaker Function. Journal of Cardiovascular Electrophysiology, 2003, 14, 104-106.	0.8	59
117	Site of Origin and Molecular Substrate of Atrioventricular Junctional Rhythm in the Rabbit Heart. Circulation Research, 2003, 93, 1102-1110.	2.0	144
118	STRUCTURE-FUNCTION RELATIONSHIPS OF THE SINOATRIAL NODE. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 3621-3629.	0.7	2
119	An unexpected requirement for brain-type sodium channels for control of heart rate in the mouse sinoatrial node. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 3507-3512.	3.3	185
120	Heterogeneous Expression of Ca²⁺ Handling Proteins in Rabbit Sinoatrial Node. Journal of Histochemistry and Cytochemistry, 2002, 50, 311-324.	1.3	88
121	Distribution of the Muscarinic K⁺ Channel Proteins Kir3.1 and Kir3.4 in the Ventricle, Atrium, and Sinoatrial Node of Heart. Journal of Histochemistry and Cytochemistry, 2001, 49, 1221-1234.	1.3	94
122	Presence of the Kv1.5 K⁺ Channel in the Sinoatrial Node. Journal of Histochemistry and Cytochemistry, 2000, 48, 769-780.	1.3	36
123	Connexin45, a Major Connexin of the Rabbit Sinoatrial Node, Is Co-expressed with Connexin43 in a Restricted Zone at the Nodal-Crista Terminalis Border. Journal of Histochemistry and Cytochemistry, 1999, 47, 907-918.	1.3	140
124	Comparison of Ion Channel Gene Expression in the Sinus Node of the Human, Rabbit, Rat and Mouse. , 0, , .		0