

# Henggui Zhang

## List of Publications by Citations

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202  
papers

4,321  
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36  
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57  
g-index

224  
ext. papers

5,717  
ext. citations

4.7  
avg, IF

5.57  
L-index

#	Paper	IF	Citations
202	Biophysical characterization of the underappreciated and important relationship between heart rate variability and heart rate. <i>Hypertension</i> , <b>2014</b> , 64, 1334-43	8.5	183
201	Heterogeneous three-dimensional anatomical and electrophysiological model of human atria. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , <b>2006</b> , 364, 1465-81	3	165
200	Detecting atrial fibrillation by deep convolutional neural networks. <i>Computers in Biology and Medicine</i> , <b>2018</b> , 93, 84-92	7	152
199	Cardiac cell modelling: observations from the heart of the cardiac physiome project. <i>Progress in Biophysics and Molecular Biology</i> , <b>2011</b> , 104, 2-21	4.7	122
198	3D virtual human atria: A computational platform for studying clinical atrial fibrillation. <i>Progress in Biophysics and Molecular Biology</i> , <b>2011</b> , 107, 156-68	4.7	112
197	Computer three-dimensional reconstruction of the atrioventricular node. <i>Circulation Research</i> , <b>2008</b> , 102, 975-85	15.7	89
196	Pro-arrhythmogenic effects of atrial fibrillation-induced electrical remodelling: insights from the three-dimensional virtual human atria. <i>Journal of Physiology</i> , <b>2013</b> , 591, 4249-72	3.9	87
195	Sinus node dysfunction following targeted disruption of the murine cardiac sodium channel gene <i>Scn5a</i> . <i>Journal of Physiology</i> , <b>2005</b> , 567, 387-400	3.9	87
194	Role of up-regulation of IK1 in action potential shortening associated with atrial fibrillation in humans. <i>Cardiovascular Research</i> , <b>2005</b> , 66, 493-502	9.9	83
193	Application of micro-computed tomography with iodine staining to cardiac imaging, segmentation, and computational model development. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 8-17	11.7	80
192	An image-based model of atrial muscular architecture: effects of structural anisotropy on electrical activation. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2012</b> , 5, 361-70	6.4	79
191	TGF- $\beta$ 1-mediated fibrosis and ion channel remodeling are key mechanisms in producing the sinus node dysfunction associated with SCN5A deficiency and aging. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2011</b> , 4, 397-406	6.4	77
190	Anatomical and molecular mapping of the left and right ventricular His-Purkinje conduction networks. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2011</b> , 51, 689-701	5.8	73
189	Mechanistic links between Na <sup>+</sup> channel (SCN5A) mutations and impaired cardiac pacemaking in sick sinus syndrome. <i>Circulation Research</i> , <b>2010</b> , 107, 126-37	15.7	72
188	Analysis of the chronotropic effect of acetylcholine on sinoatrial node cells. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2002</b> , 13, 465-74	2.7	71
187	SCN5A and sinoatrial node pacemaker function. <i>Cardiovascular Research</i> , <b>2007</b> , 74, 356-65	9.9	68
186	Computer three-dimensional anatomical reconstruction of the human sinus node and a novel paranodal area. <i>Anatomical Record</i> , <b>2011</b> , 294, 970-9	2.1	63

185	Sick sinus syndrome in HCN1-deficient mice. <i>Circulation</i> , <b>2013</b> , 128, 2585-94	16.7	61
184	The canine virtual ventricular wall: a platform for dissecting pharmacological effects on propagation and arrhythmogenesis. <i>Progress in Biophysics and Molecular Biology</i> , <b>2008</b> , 96, 187-208	4.7	59
183	High resolution 3-Dimensional imaging of the human cardiac conduction system from microanatomy to mathematical modeling. <i>Scientific Reports</i> , <b>2017</b> , 7, 7188	4.9	57
182	A computational model of the ionic currents, Ca <sup>2+</sup> dynamics and action potentials underlying contraction of isolated uterine smooth muscle. <i>PLoS ONE</i> , <b>2011</b> , 6, e18685	3.7	54
181	. <i>IEEE Access</i> , <b>2019</b> , 7, 102119-102135	3.5	53
180	Mechanisms of transition from normal to reentrant electrical activity in a model of rabbit atrial tissue: interaction of tissue heterogeneity and anisotropy. <i>Biophysical Journal</i> , <b>2009</b> , 96, 798-817	2.9	53
179	hERG inhibitors with similar potency but different binding kinetics do not pose the same proarrhythmic risk: implications for drug safety assessment. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2014</b> , 25, 197-207	2.7	52
178	Quantitative proteomics and single-nucleus transcriptomics of the sinus node elucidates the foundation of cardiac pacemaking. <i>Nature Communications</i> , <b>2019</b> , 10, 2889	17.4	51
177	Viewpoint: is the resting bradycardia in athletes the result of remodeling of the sinoatrial node rather than high vagal tone?. <i>Journal of Applied Physiology</i> , <b>2013</b> , 114, 1351-5	3.7	50
176	Automatic Detection of Atrial Fibrillation Based on Continuous Wavelet Transform and 2D Convolutional Neural Networks. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 1206	4.6	50
175	A mathematical model of action potentials of mouse sinoatrial node cells with molecular bases. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2011</b> , 301, H945-63	5.2	48
174	Increased vulnerability of human ventricle to re-entrant excitation in hERG-linked variant 1 short QT syndrome. <i>PLoS Computational Biology</i> , <b>2011</b> , 7, e1002313	5	48
173	Repolarisation and vulnerability to re-entry in the human heart with short QT syndrome arising from KCNQ1 mutation--a simulation study. <i>Progress in Biophysics and Molecular Biology</i> , <b>2008</b> , 96, 112-31	4.7	47
172	Atrial proarrhythmia due to increased inward rectifier current (I(K1)) arising from KCNJ2 mutation--a simulation study. <i>Progress in Biophysics and Molecular Biology</i> , <b>2008</b> , 98, 186-97	4.7	44
171	Inverse Correlation between Heart Rate Variability and Heart Rate Demonstrated by Linear and Nonlinear Analysis. <i>PLoS ONE</i> , <b>2016</b> , 11, e0157557	3.7	42
170	Multi-Views Fusion CNN for Left Ventricular Volumes Estimation on Cardiac MR Images. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2018</b> , 65, 1924-1934	5	40
169	Optimal velocity and safety of discontinuous conduction through the heterogeneous Purkinje-ventricular junction. <i>Biophysical Journal</i> , <b>2009</b> , 97, 20-39	2.9	40
168	Ionic mechanisms for electrical heterogeneity between rabbit Purkinje fiber and ventricular cells. <i>Biophysical Journal</i> , <b>2010</b> , 98, 2420-31	2.9	37

167	Proarrhythmia in KCNJ2-linked short QT syndrome: insights from modelling. <i>Cardiovascular Research</i> , <b>2012</b> , 94, 66-76	9.9	37
166	In silico study of action potential and QT interval shortening due to loss of inactivation of the cardiac rapid delayed rectifier potassium current. <i>Biochemical and Biophysical Research Communications</i> , <b>2004</b> , 322, 693-9	3.4	35
165	Image-based model of atrial anatomy and electrical activation: a computational platform for investigating atrial arrhythmia. <i>IEEE Transactions on Medical Imaging</i> , <b>2013</b> , 32, 18-27	11.7	34
164	Action potential clamp and chloroquine sensitivity of mutant Kir2.1 channels responsible for variant 3 short QT syndrome. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2009</b> , 47, 743-7	5.8	34
163	Abnormal calcium homeostasis in heart failure with preserved ejection fraction is related to both reduced contractile function and incomplete relaxation: an electromechanically detailed biophysical modeling study. <i>Frontiers in Physiology</i> , <b>2015</b> , 6, 78	4.6	33
162	Optogenetic Control of Heart Rhythm by Selective Stimulation of Cardiomyocytes Derived from Pnmt Cells in Murine Heart. <i>Scientific Reports</i> , <b>2017</b> , 7, 40687	4.9	32
161	Left ventricular ejection fraction is determined by both global myocardial strain and wall thickness. <i>IJC Heart and Vasculature</i> , <b>2015</b> , 7, 113-118	2.4	32
160	Mkk4 is a negative regulator of the transforming growth factor beta 1 signaling associated with atrial remodeling and arrhythmogenesis with age. <i>Journal of the American Heart Association</i> , <b>2014</b> , 3, e000340	6	32
159	A computational model of spatio-temporal cardiac intracellular calcium handling with realistic structure and spatial flux distribution from sarcoplasmic reticulum and t-tubule reconstructions. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005714	5	31
158	In silico investigation of the short QT syndrome, using human ventricle models incorporating electromechanical coupling. <i>Frontiers in Physiology</i> , <b>2013</b> , 4, 166	4.6	31
157	Evolution and pharmacological modulation of the arrhythmogenic wave dynamics in canine pulmonary vein model. <i>Europace</i> , <b>2014</b> , 16, 416-23	3.9	30
156	Heterogeneous and anisotropic integrative model of pulmonary veins: computational study of arrhythmogenic substrate for atrial fibrillation. <i>Interface Focus</i> , <b>2013</b> , 3, 20120069	3.9	30
155	cAMP-dependent regulation of HCN4 controls the tonic entrainment process in sinoatrial node pacemaker cells. <i>Nature Communications</i> , <b>2020</b> , 11, 5555	17.4	29
154	A multi-step method with signal quality assessment and fine-tuning procedure to locate maternal and fetal QRS complexes from abdominal ECG recordings. <i>Physiological Measurement</i> , <b>2014</b> , 35, 1665-83 <sup>2.9</sup>		29
153	Pro-arrhythmogenic effects of the S140G KCNQ1 mutation in human atrial fibrillation - insights from modelling. <i>Journal of Physiology</i> , <b>2012</b> , 590, 4501-14	3.9	27
152	Mechanisms by which cytoplasmic calcium wave propagation and alternans are generated in cardiac atrial myocytes lacking T-tubules-insights from a simulation study. <i>Biophysical Journal</i> , <b>2012</b> , 102, 1471-82 <sup>2.9</sup>		27
151	Emerging therapeutic targets in the short QT syndrome. <i>Expert Opinion on Therapeutic Targets</i> , <b>2018</b> , 22, 439-451	6.4	26
150	Acidosis impairs the protective role of hERG K(+) channels against premature stimulation. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2010</b> , 21, 1160-9	2.7	26

149	Novel ion channel targets in atrial fibrillation. <i>Expert Opinion on Therapeutic Targets</i> , <b>2016</b> , 20, 947-58	6.4	26
148	Antenatal architecture and activity of the human heart. <i>Interface Focus</i> , <b>2013</b> , 3, 20120065	3.9	25
147	Synergistic Anti-arrhythmic Effects in Human Atria with Combined Use of Sodium Blockers and Acacetin. <i>Frontiers in Physiology</i> , <b>2017</b> , 8, 946	4.6	24
146	The virtual heart as a platform for screening drug cardiotoxicity. <i>British Journal of Pharmacology</i> , <b>2015</b> , 172, 5531-47	8.6	23
145	A novel computational sheep atria model for the study of atrial fibrillation. <i>Interface Focus</i> , <b>2013</b> , 3, 20120067	3.9	23
144	The role of transient outward K <sup>+</sup> current in electrical remodelling induced by voluntary exercise in female rat hearts. <i>Basic Research in Cardiology</i> , <b>2009</b> , 104, 643-52	11.8	23
143	Cyclical modulation of human ventricular repolarization by respiration. <i>Frontiers in Physiology</i> , <b>2012</b> , 3, 379	4.6	23
142	Importance of gradients in membrane properties and electrical coupling in sinoatrial node pacing. <i>PLoS ONE</i> , <b>2014</b> , 9, e94565	3.7	22
141	Peroxynitrite formation mediates LPC-induced augmentation of cardiac late sodium currents. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2008</b> , 44, 241-51	5.8	22
140	Deep Atlas Network for Efficient 3D Left Ventricle Segmentation on Echocardiography. <i>Medical Image Analysis</i> , <b>2020</b> , 61, 101638	15.4	21
139	Pak1 is required to maintain ventricular Ca <sup>2+</sup> homeostasis and electrophysiological stability through SERCA2a regulation in mice. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2014</b> , 7, 938-48	6.4	21
138	Sustained inward current and pacemaker activity of mammalian sinoatrial node. <i>Journal of Cardiovascular Electrophysiology</i> , <b>2002</b> , 13, 809-12	2.7	21
137	Imaging the heart: computer 3-dimensional anatomic models of the heart. <i>Journal of Electrocardiology</i> , <b>2005</b> , 38, 113-20	1.4	21
136	Atrial arrhythmogenicity of KCNJ2 mutations in short QT syndrome: Insights from virtual human atria. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005593	5	20
135	Virtual tissue engineering of the human atrium: modelling pharmacological actions on atrial arrhythmogenesis. <i>European Journal of Pharmaceutical Sciences</i> , <b>2012</b> , 46, 209-21	5.1	20
134	Computational Analysis of the Mode of Action of Disopyramide and Quinidine on hERG-Linked Short QT Syndrome in Human Ventricles. <i>Frontiers in Physiology</i> , <b>2017</b> , 8, 759	4.6	20
133	Effects of Persistent Atrial Fibrillation-Induced Electrical Remodeling on Atrial Electro-Mechanics - Insights from a 3D Model of the Human Atria. <i>PLoS ONE</i> , <b>2015</b> , 10, e0142397	3.7	20
132	In silico assessment of genetic variation in KCNA5 reveals multiple mechanisms of human atrial arrhythmogenesis. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005587	5	20

131	A Computer Simulation Study of Anatomy Induced Drift of Spiral Waves in the Human Atrium. <i>BioMed Research International</i> , <b>2015</b> , 2015, 731386	3	18
130	Simulation of Brugada syndrome using cellular and three-dimensional whole-heart modeling approaches. <i>Physiological Measurement</i> , <b>2006</b> , 27, 1125-42	2.9	18
129	Physiological mechanisms of pulmonary hypertension. <i>American Heart Journal</i> , <b>2016</b> , 180, 1-11	4.9	17
128	Theoretical investigation of the mechanism of heart failure using a canine ventricular cell model: especially the role of up-regulated CaMKII and SR Ca(2+) leak. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2013</b> , 56, 34-43	5.8	17
127	Simulation of clinical electrophysiology in 3D human atria: a high-performance computing and high-performance visualization application. <i>Concurrency Computation Practice and Experience</i> , <b>2008</b> , 20, 1317-1328	1.4	17
126	Action potential clamp and pharmacology of the variant 1 Short QT Syndrome T618I hERG K+ channel. <i>PLoS ONE</i> , <b>2012</b> , 7, e52451	3.7	17
125	In silico investigation of a KCNQ1 mutation associated with short QT syndrome. <i>Scientific Reports</i> , <b>2017</b> , 7, 8469	4.9	16
124	Computational Cardiac Modeling Reveals Mechanisms of Ventricular Arrhythmogenesis in Long QT Syndrome Type 8: R858H Mutation Linked to Ventricular Fibrillation. <i>Frontiers in Physiology</i> , <b>2017</b> , 8, 771	4.6	16
123	Effects of human atrial ionic remodelling by $\beta$ -blocker therapy on mechanisms of atrial fibrillation: a computer simulation. <i>Europace</i> , <b>2014</b> , 16, 1524-33	3.9	16
122	Modification by KCNE1 variants of the hERG potassium channel response to premature stimulation and to pharmacological inhibition. <i>Physiological Reports</i> , <b>2013</b> , 1, e00175	2.6	16
121	A circadian clock in the sinus node mediates day-night rhythms in Hcn4 and heart rate. <i>Heart Rhythm</i> , <b>2021</b> , 18, 801-810	6.7	16
120	Human Atrial Arrhythmogenesis and Sinus Bradycardia in $\beta$ -Linked Short QT Syndrome: Insights From Computational Modelling. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 1402	4.6	16
119	Correlation between P-wave morphology and origin of atrial focal tachycardia--insights from realistic models of the human atria and torso. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2011</b> , 58, 2952-5	5.5	15
118	Generating electrocardiogram signals by deep learning. <i>Neurocomputing</i> , <b>2020</b> , 404, 122-136	5.4	15
117	Atrioventricular Node Dysfunction and Ion Channel Transcriptome in Pulmonary Hypertension. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2016</b> , 9,	6.4	15
116	Postnatal development of transmural gradients in expression of ion channels and Ca <sup>2+</sup> -handling proteins in the ventricle. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2012</b> , 53, 145-55	5.8	14
115	Effect of cardiac ventricular mechanical contraction on the characteristics of the ECG: A simulation study. <i>Journal of Biomedical Science and Engineering</i> , <b>2013</b> , 06, 47-60	0.7	14
114	A Combined Fully Convolutional Networks and Deformable Model for Automatic Left Ventricle Segmentation Based on 3D Echocardiography. <i>BioMed Research International</i> , <b>2018</b> , 2018, 5682365	3	14



113	The end of the unique myocardial band: Part II. Clinical and functional considerations. <i>European Journal of Cardio-thoracic Surgery</i> , <b>2018</b> , 53, 120-128	3	13
112	Modeling the chronotropic effect of isoprenaline on rabbit sinoatrial node. <i>Frontiers in Physiology</i> , <b>2012</b> , 3, 241	4.6	13
111	Parallel Optimization of 3D Cardiac Electrophysiological Model Using GPU. <i>Computational and Mathematical Methods in Medicine</i> , <b>2015</b> , 2015, 862735	2.8	12
110	Three-dimensional computer model of the right atrium including the sinoatrial and atrioventricular nodes predicts classical nodal behaviours. <i>PLoS ONE</i> , <b>2014</b> , 9, e112547	3.7	12
109	Integration of genetics into a systems model of electrocardiographic traits using HumanCVD BeadChip. <i>Circulation: Cardiovascular Genetics</i> , <b>2012</b> , 5, 630-8		12
108	Mechanisms underlying adaptation of action potential duration by pacing rate in rat myocytes. <i>Progress in Biophysics and Molecular Biology</i> , <b>2008</b> , 96, 305-20	4.7	12
107	Commensal correlation network between segmentation and direct area estimation for bi-ventricle quantification. <i>Medical Image Analysis</i> , <b>2020</b> , 59, 101591	15.4	12
106	Stress-Activated Kinase Mitogen-Activated Kinase Kinase-7 Governs Epigenetics of Cardiac Repolarization for Arrhythmia Prevention. <i>Circulation</i> , <b>2017</b> , 135, 683-699	16.7	11
105	A new algorithm to diagnose atrial ectopic origin from multi lead ECG systems--insights from 3D virtual human atria and torso. <i>PLoS Computational Biology</i> , <b>2015</b> , 11, e1004026	5	11
104	Insights from echocardiography, magnetic resonance imaging, and microcomputed tomography relative to the mid-myocardial left ventricular echogenic zone. <i>Echocardiography</i> , <b>2016</b> , 33, 1546-1556	1.5	11
103	Mechanisms Underlying the Emergence of Post-acidosis Arrhythmia at the Tissue Level: A Theoretical Study. <i>Frontiers in Physiology</i> , <b>2017</b> , 8, 195	4.6	11
102	Electrophysiological models for the heterogeneous canine atria: computational platform for studying rapid atrial arrhythmias. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 1422-6	0.9	11
101	Pro-arrhythmogenic effects of CACNA1C G1911R mutation in human ventricular tachycardia: insights from cardiac multi-scale models. <i>Scientific Reports</i> , <b>2016</b> , 6, 31262	4.9	11
100	Comparison of Electric- and Magnetic-Cardiograms Produced by Myocardial Ischemia in Models of the Human Ventricle and Torso. <i>PLoS ONE</i> , <b>2016</b> , 11, e0160999	3.7	10
99	Altered Left Ventricular Ion Channel Transcriptome in a High-Fat-Fed Rat Model of Obesity: Insight into Obesity-Induced Arrhythmogenesis. <i>Journal of Obesity</i> , <b>2016</b> , 2016, 7127898	3.7	10
98	Transient outward K current can strongly modulate action potential duration and initiate alternans in the human atrium. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2019</b> , 316, H527-H542	5.2	10
97	In-silico investigations of the functional impact of KCNA5 mutations on atrial mechanical dynamics. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2017</b> , 111, 86-95	5.8	9
96	Reducing false arrhythmia alarms in the ICU using novel signal quality indices assessment method <b>2015</b> ,		9

95	Remodelling of cellular excitation (reaction) and intercellular coupling (diffusion) by chronic atrial fibrillation represented by a reaction-diffusion system. <i>Physica D: Nonlinear Phenomena</i> , <b>2009</b> , 238, 976-983	3.3	9
94	Mitogen-activated protein kinase kinase 4 deficiency in cardiomyocytes causes connexin 43 reduction and couples hypertrophic signals to ventricular arrhythmogenesis. <i>Journal of Biological Chemistry</i> , <b>2011</b> , 286, 17821-30	5.4	9
93	In silico assessment of the effects of quinidine, disopyramide and E-4031 on short QT syndrome variant 1 in the human ventricles. <i>PLoS ONE</i> , <b>2017</b> , 12, e0179515	3.7	9
92	Mechanistic insight into spontaneous transition from cellular alternans to arrhythmia-A simulation study. <i>PLoS Computational Biology</i> , <b>2018</b> , 14, e1006594	5	9
91	In silico study of the effects of anti-arrhythmic drug treatment on sinoatrial node function for patients with atrial fibrillation. <i>Scientific Reports</i> , <b>2020</b> , 10, 305	4.9	8
90	Proarrhythmia in the p.Met207Val PITX2c-Linked Familial Atrial Fibrillation-Insights From Modeling. <i>Frontiers in Physiology</i> , <b>2019</b> , 10, 1314	4.6	8
89	Optimal iodine staining of cardiac tissue for X-ray computed tomography. <i>PLoS ONE</i> , <b>2014</b> , 9, e105552	3.7	8
88	Modelling propagation and re-entry in anisotropic and smoothly heterogeneous cardiac tissue. <i>Journal of the Chemical Society, Faraday Transactions</i> , <b>1993</b> , 89, 2833		8
87	Mechanistic insights from targeted molecular profiling of repolarization alternans in the intact human heart. <i>Europace</i> , <b>2019</b> , 21, 981-989	3.9	8
86	Automatic Detection of QRS Complexes Using Dual Channels Based on U-Net and Bidirectional Long Short-Term Memory. <i>IEEE Journal of Biomedical and Health Informatics</i> , <b>2021</b> , 25, 1052-1061	7.2	8
85	Assessment of Pharmacotherapy for Human Atrial Patho-Electrophysiology Associated With hERG-Linked Short QT Syndrome. <i>Frontiers in Physiology</i> , <b>2018</b> , 9, 1888	4.6	7
84	PITX2 upregulation increases the risk of chronic atrial fibrillation in a dose-dependent manner by modulating and -insights from human atrial modelling. <i>Annals of Translational Medicine</i> , <b>2020</b> , 8, 191	3.2	7
83	Recent progress in multi-scale models of the human atria. <i>Drug Discovery Today: Disease Models</i> , <b>2014</b> , 14, 23-32	1.3	7
82	Effects of maximal sodium and potassium conductance on the stability of Hodgkin-Huxley model. <i>Computational and Mathematical Methods in Medicine</i> , <b>2014</b> , 2014, 761907	2.8	7
81	Simulating the effects of atrial fibrillation induced electrical remodeling: a comprehensive simulation study. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2008</b> , 2008, 593-6	0.9	7
80	Modelling the effects of chloroquine on -linked short QT syndrome. <i>Oncotarget</i> , <b>2017</b> , 8, 106511-106526	3.3	7
79	Populations of in silico myocytes and tissues reveal synergy of multiatrial-predominant K -current block in atrial fibrillation. <i>British Journal of Pharmacology</i> , <b>2020</b> , 177, 4497-4515	8.6	7
78	Characterization and influence of cardiac background sodium current in the atrioventricular node. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2016</b> , 97, 114-24	5.8	7



77	Effects of amiodarone on short QT syndrome variant 3 in human ventricles: a simulation study. <i>BioMedical Engineering OnLine</i> , <b>2017</b> , 16, 69	4.1	6
76	A 2D Electromechanical Model of Human Atrial Tissue Using the Discrete Element Method. <i>BioMed Research International</i> , <b>2015</b> , 2015, 854953	3	6
75	Electro-mechanical dynamics of spiral waves in a discrete 2D model of human atrial tissue. <i>PLoS ONE</i> , <b>2017</b> , 12, e0176607	3.7	6
74	A Mathematical Model of the Mouse Atrial Myocyte With Inter-Atrial Electrophysiological Heterogeneity. <i>Frontiers in Physiology</i> , <b>2020</b> , 11, 972	4.6	6
73	An efficient and fast GPU-based algorithm for visualizing large volume of 4D data from virtual heart simulations. <i>Biomedical Signal Processing and Control</i> , <b>2017</b> , 35, 8-18	4.9	5
72	Mechanism underlying impaired cardiac pacemaking rhythm during ischemia: A simulation study. <i>Chaos</i> , <b>2017</b> , 27, 093934	3.3	5
71	EFFECTS OF ACUTE GLOBAL ISCHEMIA ON RE-ENTRANT ARRHYTHMOGENESIS: A SIMULATION STUDY. <i>Journal of Biological Systems</i> , <b>2015</b> , 23, 213-230	1.6	5
70	Novel non-invasive algorithm to identify the origins of re-entry and ectopic foci in the atria from 64-lead ECGs: A computational study. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005270	5	5
69	Influence of the distribution of fibrosis within an area of myocardial infarction on wave propagation in ventricular tissue. <i>Scientific Reports</i> , <b>2019</b> , 9, 14151	4.9	5
68	Multi-boundary cardiac data visualization based on multidimensional transfer function with ray distance. <i>Bio-Medical Materials and Engineering</i> , <b>2014</b> , 24, 3025-32	1	5
67	Development of biophysically detailed electrophysiological models for pacemaking and non-pacemaking human pulmonary vein cardiomyocytes. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2012</b> , 2012, 199-202	0.9	5
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