

Igor Efimov

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

302
papers

10,306
citations

56
h-index

89
g-index

344
ext. papers

12,379
ext. citations

6.7
avg, IF

6.02
L-index

#	Paper	IF	Citations
302	Electrophysiology and Arrhythmogenesis in the Human Right Ventricular Outflow Tract.. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2022 , CIRCEP121010630	6.4	1
301	Open-source low-cost cardiac optical mapping system.. <i>PLoS ONE</i> , 2022 , 17, e0259174	3.7	
300	Simultaneous triple-parametric optical mapping of transmembrane potential, intracellular calcium and NADH for cardiac physiology assessment.. <i>Communications Biology</i> , 2022 , 5, 319	6.7	0
299	A transient, closed-loop network of wireless, body-integrated devices for autonomous electrotherapy. <i>Science</i> , 2022 , 376, 1006-1012	33.3	17
298	Innovation in Cardiovascular Bioelectronics 2022 , 587-602		
297	Systems Genetics Analysis Defines Importance Of TMEM43/LUMA For Cardiac And Metabolic Related Pathways. <i>Physiological Genomics</i> , 2021 ,	3.6	1
296	Advances in Implantable Optogenetic Technology for Cardiovascular Research and Medicine. <i>Frontiers in Physiology</i> , 2021 , 12, 720190	4.6	1
295	Multi-omics integration identifies key upstream regulators of pathomechanisms in hypertrophic cardiomyopathy due to truncating MYBPC3 mutations. <i>Clinical Epigenetics</i> , 2021 , 13, 61	7.7	1
294	Innervation and Neuronal Control of the Mammalian Sinoatrial Node a Comprehensive Atlas. <i>Circulation Research</i> , 2021 , 128, 1279-1296	15.7	19
293	Stretchable and Transparent Metal Nanowire Microelectrodes for Simultaneous Electrophysiology and Optogenetics Applications. <i>Photonics</i> , 2021 , 8, 220	2.2	2
292	It's clearly the heart! Optical transparency, cardiac tissue imaging, and computer modelling. <i>Progress in Biophysics and Molecular Biology</i> , 2021 , 168, 18-18	4.7	0
291	Flexible and Transparent Metal Nanowire Microelectrode Arrays and Interconnects for Electrophysiology, Optogenetics, and Optical Mapping. <i>Advanced Materials Technologies</i> , 2021 , 6, 2100225	6.8	9
290	Fully implantable and bioresorbable cardiac pacemakers without leads or batteries. <i>Nature Biotechnology</i> , 2021 , 39, 1228-1238	44.5	38
289	Photocurable bioresorbable adhesives as functional interfaces between flexible bioelectronic devices and soft biological tissues. <i>Nature Materials</i> , 2021 , 20, 1559-1570	27	29
288	Microelectrode Arrays: Flexible and Transparent Metal Nanowire Microelectrode Arrays and Interconnects for Electrophysiology, Optogenetics, and Optical Mapping (Adv. Mater. Technol. 7/2021). <i>Advanced Materials Technologies</i> , 2021 , 6, 2170041	6.8	1
287	The Role of Electroporation 2021 , 233-241		
286	Conformal Electronics Therapy for Defibrillation 2021 , 381-389		

285	The Virtual Electrode Hypothesis of Defibrillation 2021 , 181-197		
284	Chromatin Accessibility of Human Mitral Valves and Functional Assessment of MVP Risk Loci. <i>Circulation Research</i> , 2021 , 128, e84-e101	15.7	3
283	Differential cardiotoxic electrocardiographic response to doxorubicin treatment in conscious versus anesthetized mice. <i>Physiological Reports</i> , 2021 , 9, e14987	2.6	2
282	Novel Low-Voltage MultiPulse Therapy to Terminate Atrial Fibrillation. <i>JACC: Clinical Electrophysiology</i> , 2021 , 7, 988-999	4.6	4
281	Personalization of Mathematical Models of Human Atrial Action Potential. <i>Smart Innovation, Systems and Technologies</i> , 2021 , 223-236	0.5	
280	Graphene-Based Scaffolds: Fundamentals and Applications for Cardiovascular Tissue Engineering.. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021 , 9, 797340	5.8	2
279	cAMP-dependent regulation of HCN4 controls the tonic entrainment process in sinoatrial node pacemaker cells. <i>Nature Communications</i> , 2020 , 11, 5555	17.4	29
278	Transcriptional Patterning of the Ventricular Cardiac Conduction System. <i>Circulation Research</i> , 2020 , 127, e94-e106	15.7	5
277	ZO-1 Regulates Intercalated Disc Composition and Atrioventricular Node Conduction. <i>Circulation Research</i> , 2020 , 127, e28-e43	15.7	5
276	Genetic algorithm-based personalized models of human cardiac action potential. <i>PLoS ONE</i> , 2020 , 15, e0231695	3.7	9
275	Flexible and Transparent Metal Oxide/Metal Grid Hybrid Interfaces for Electrophysiology and Optogenetics. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000322	6.8	12
274	Preclinical Cardiac Electrophysiology Assessment by Dual Voltage and Calcium Optical Mapping of Human Organotypic Cardiac Slices. <i>Journal of Visualized Experiments</i> , 2020 ,	1.6	5
273	Granger Causality-Based Analysis for Classification of Fibrillation Mechanisms and Localization of Rotational Drivers. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2020 , 13, e008237	6.4	6
272	Multifunctional Flexible Biointerfaces for Simultaneous Colocalized Optophysiology and Electrophysiology. <i>Advanced Functional Materials</i> , 2020 , 30, 1910027	15.6	14
271	Organ conformal electronics for cardiac therapeutics 2020 , 911-937		
270	Basic Principles of Cardiac Electrophysiology. <i>Contemporary Cardiology</i> , 2020 , 3-32	0.1	1
269	Heart slice culture system reliably demonstrates clinical drug-related cardiotoxicity. <i>Toxicology and Applied Pharmacology</i> , 2020 , 406, 115213	4.6	5
268	Role of angiotensin-converting enzyme 2 and pericytes in cardiac complications of COVID-19 infection. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020 , 319, H1059-H1068	5.2	13

267	Evidence of Superior and Inferior Sinoatrial Nodes in the Mammalian Heart. <i>JACC: Clinical Electrophysiology</i> , 2020 , 6, 1827-1840	4.6	17
266	Catheter-integrated soft multilayer electronic arrays for multiplexed sensing and actuation during cardiac surgery. <i>Nature Biomedical Engineering</i> , 2020 , 4, 997-1009	19	74
265	p38 β genetic ablation protects female mice from anthracycline cardiotoxicity. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020 , 319, H775-H786	5.2	4
264	Response by Handa et al to Letter Regarding Article, "Granger Causality-Based Analysis for Classification of Fibrillation Mechanisms and Localization of Rotational Drivers". <i>Circulation: Arrhythmia and Electrophysiology</i> , 2020 , 13, e008951	6.4	
263	Elastic titin properties and protein quality control in the aging heart. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2020 , 1867, 118532	4.9	1
262	Genetic algorithm-based personalized models of human cardiac action potential 2020 , 15, e0231695		
261	Genetic algorithm-based personalized models of human cardiac action potential 2020 , 15, e0231695		
260	Genetic algorithm-based personalized models of human cardiac action potential 2020 , 15, e0231695		
259	Genetic algorithm-based personalized models of human cardiac action potential 2020 , 15, e0231695		
258	Genetic algorithm-based personalized models of human cardiac action potential 2020 , 15, e0231695		
257	Genetic algorithm-based personalized models of human cardiac action potential 2020 , 15, e0231695		
256	Integrative Functional Annotation of 52 Genetic Loci Influencing Myocardial Mass Identifies Candidate Regulatory Variants and Target Genes. <i>Circulation Genomic and Precision Medicine</i> , 2019 , 12, e002328	5.2	5
255	Optocardiography: A Review of its Past, Present and Future. <i>Current Opinion in Biomedical Engineering</i> , 2019 , 9, 74-80	4.4	6
254	Optical Mapping of Arrhythmogenic Remodeling in the Failing Human Heart 2019 , 431-447		
253	Optical Mapping of Successful and Failed Defibrillation 2019 , 448-463		
252	Sudden Heart Rate Reduction Upon Optogenetic Release of Acetylcholine From Cardiac Parasympathetic Neurons in Perfused Hearts. <i>Frontiers in Physiology</i> , 2019 , 10, 16	4.6	21
251	Open-Source Multiparametric Optocardiography. <i>Scientific Reports</i> , 2019 , 9, 721	4.9	10
250	Multiparametric slice culture platform for the investigation of human cardiac tissue physiology. <i>Progress in Biophysics and Molecular Biology</i> , 2019 , 144, 139-150	4.7	17

249	Optical Mapping. <i>Cardiac Electrophysiology Clinics</i> , 2019 , 11, 495-510	1.4	9
248	Wireless, battery-free, fully implantable multimodal and multisite pacemakers for applications in small animal models. <i>Nature Communications</i> , 2019 , 10, 5742	17.4	72
247	Identification of atrial fibrillation associated genes and functional non-coding variants. <i>Nature Communications</i> , 2019 , 10, 4755	17.4	36
246	Flotillins in the intercalated disc are potential modulators of cardiac excitability. <i>Journal of Molecular and Cellular Cardiology</i> , 2019 , 126, 86-95	5.8	2
245	RHYTHM: An Open Source Imaging Toolkit for Cardiac Panoramic Optical Mapping. <i>Scientific Reports</i> , 2018 , 8, 2921	4.9	23
244	Left Septal Slow Pathway Ablation for Atrioventricular Nodal Reentrant Tachycardia. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2018 , 11, e005907	6.4	16
243	A coupled-clock system drives the automaticity of human sinoatrial nodal pacemaker cells. <i>Science Signaling</i> , 2018 , 11,	8.8	34
242	AuthorsReply: Unravelling the Mysteries of the Human AV Node. <i>Arrhythmia and Electrophysiology Review</i> , 2018 , 7, 63-64	3.2	7
241	Specialized impulse conduction pathway in the alligator heart. <i>ELife</i> , 2018 , 7,	8.9	28
240	Ultrafast Volumetric Optoacoustic Imaging of Whole Isolated Beating Mouse Heart. <i>Scientific Reports</i> , 2018 , 8, 14132	4.9	10
239	Critical Volume of Human Myocardium Necessary to Maintain Ventricular Fibrillation. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2018 , 11, e006692	6.4	13
238	Capacitively Coupled Arrays of Multiplexed Flexible Silicon Transistors for Long-Term Cardiac Electrophysiology. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	163
237	Widespread Down-Regulation of Cardiac Mitochondrial and Sarcomeric Genes in Patients With Sepsis. <i>Critical Care Medicine</i> , 2017 , 45, 407-414	1.4	43
236	Fractionated electrograms with ST-segment elevation recorded from the human right ventricular outflow tract. <i>HeartRhythm Case Reports</i> , 2017 , 3, 546-550	1	5
235	Tachycardia Termination by Shocks and Pacing 2017 , 190-212		
234	Computational assessment of the functional role of sinoatrial node exit pathways in the human heart. <i>PLoS ONE</i> , 2017 , 12, e0183727	3.7	17
233	Local transmural action potential gradients are absent in the isolated, intact dog heart but present in the corresponding coronary-perfused wedge. <i>Physiological Reports</i> , 2017 , 5, e13251	2.6	9
232	Pathways to clinical CLARITY: volumetric analysis of irregular, soft, and heterogeneous tissues in development and disease. <i>Scientific Reports</i> , 2017 , 7, 5899	4.9	27

231	Adrenergic stimulation augments transmural dispersion of repolarization via modulation of delayed rectifier currents I and I in the human ventricle. <i>Scientific Reports</i> , 2017 , 7, 15922	4.9	15
230	Transient Notch Activation Induces Long-Term Gene Expression Changes Leading to Sick Sinus Syndrome in Mice. <i>Circulation Research</i> , 2017 , 121, 549-563	15.7	15
229	At the Atrioventricular Crossroads: Dual Pathway Electrophysiology in the Atrioventricular Node and its Underlying Heterogeneities. <i>Arrhythmia and Electrophysiology Review</i> , 2017 , 6, 179-185	3.2	19
228	Commentary: A Supraventricular Tachycardia: What Is It? Where Should One Ablate?. <i>Journal of Innovations in Cardiac Rhythm Management</i> , 2017 , 8, 2684-2688	1.1	
227	Reduced response to IKr blockade and altered hERG1a/1b stoichiometry in human heart failure. <i>Journal of Molecular and Cellular Cardiology</i> , 2016 , 96, 82-92	5.8	26
226	Letter by Ng and Efimov Regarding Article, "Electrophysiological Effects of Selective Atrial Coronary Artery Occlusion in Humans". <i>Circulation</i> , 2016 , 134, e397-e398	16.7	
225	Human Organotypic Cultured Cardiac Slices: New Platform For High Throughput Preclinical Human Trials. <i>Scientific Reports</i> , 2016 , 6, 28798	4.9	52
224	Pitx2 modulates a Tbx5-dependent gene regulatory network to maintain atrial rhythm. <i>Science Translational Medicine</i> , 2016 , 8, 354ra115	17.5	79
223	Ultrathin Injectable Sensors of Temperature, Thermal Conductivity, and Heat Capacity for Cardiac Ablation Monitoring. <i>Advanced Healthcare Materials</i> , 2016 , 5, 373-81	10.1	36
222	A technical review of optical mapping of intracellular calcium within myocardial tissue. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016 , 310, H1388-401	5.2	36
221	Arrhythmogenic and metabolic remodelling of failing human heart. <i>Journal of Physiology</i> , 2016 , 594, 3963-80	3.9	13
220	Intermittent drivers anchoring to structural heterogeneities as a major pathophysiological mechanism of human persistent atrial fibrillation. <i>Journal of Physiology</i> , 2016 , 594, 2387-98	3.9	86
219	Mitochondrial structure and function are not different between nonfailing donor and end-stage failing human hearts. <i>FASEB Journal</i> , 2016 , 30, 2698-707	0.9	16
218	Technical advances in studying cardiac electrophysiology - Role of rabbit models. <i>Progress in Biophysics and Molecular Biology</i> , 2016 , 121, 97-109	4.7	10
217	Ultrathin Injectable Sensors: Ultrathin Injectable Sensors of Temperature, Thermal Conductivity, and Heat Capacity for Cardiac Ablation Monitoring (Adv. Healthcare Mater. 3/2016). <i>Advanced Healthcare Materials</i> , 2016 , 5, 394-394	10.1	
216	Optical Mapping of Cardiac Electromechanics. <i>Biophysical Journal</i> , 2016 , 111, 269-270	2.9	1
215	Canonical wnt signaling regulates atrioventricular junction programming and electrophysiological properties. <i>Circulation Research</i> , 2015 , 116, 398-406	15.7	57
214	Materials and fractal designs for 3D multifunctional integumentary membranes with capabilities in cardiac electrotherapy. <i>Advanced Materials</i> , 2015 , 27, 1731-7	24	117

213	Transmural APD gradient synchronizes repolarization in the human left ventricular wall. <i>Cardiovascular Research</i> , 2015 , 108, 188-96	9.9	37
212	An activation-repolarization time metric to predict localized regions of high susceptibility to reentry. <i>Heart Rhythm</i> , 2015 , 12, 1644-53	6.7	21
211	Feasibility of a semi-automated method for cardiac conduction velocity analysis of high-resolution activation maps. <i>Computers in Biology and Medicine</i> , 2015 , 65, 177-83	7	15
210	Imaging of Ventricular Fibrillation and Defibrillation: The Virtual Electrode Hypothesis. <i>Advances in Experimental Medicine and Biology</i> , 2015 , 859, 343-65	3.6	11
209	Arrhythmogenic remodeling of β versus α adrenergic signaling in the human failing heart. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015 , 8, 409-19	6.4	50
208	Diet-induced obesity promotes altered remodeling and exacerbated cardiac hypertrophy following pressure overload. <i>Physiological Reports</i> , 2015 , 3, e12489	2.6	12
207	Quantification of the transmural dynamics of atrial fibrillation by simultaneous endocardial and epicardial optical mapping in an acute sheep model. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015 , 8, 456-65	6.4	30
206	Membranes: Materials and Fractal Designs for 3D Multifunctional Integumentary Membranes with Capabilities in Cardiac Electrotherapy (Adv. Mater. 10/2015). <i>Advanced Materials</i> , 2015 , 27, 1730-1730	24	2
205	Introduction to noninvasive cardiac mapping. <i>Cardiac Electrophysiology Clinics</i> , 2015 , 7, 1-16	1.4	8
204	Rotors in patients with persistent atrial fibrillation: case report of a left atrial appendage rotor identified by a novel computational mapping algorithm integrated into 3-dimensional mapping and termination of atrial fibrillation with ablation. <i>Cardiac Electrophysiology Clinics</i> , 2015 , 7, 157-63	1.4	2
203	Electrophysiological changes correlated with temperature increases induced by high-intensity focused ultrasound ablation. <i>Ultrasound in Medicine and Biology</i> , 2015 , 41, 432-48	3.5	3
202	3D multifunctional integumentary membranes for spatiotemporal cardiac measurements and stimulation across the entire epicardium. <i>Nature Communications</i> , 2014 , 5, 3329	17.4	384
201	Stretchable, multiplexed pH sensors with demonstrations on rabbit and human hearts undergoing ischemia. <i>Advanced Healthcare Materials</i> , 2014 , 3, 59-68	10.1	87
200	A shocking past: a walk through generations of defibrillation development. <i>IEEE Transactions on Biomedical Engineering</i> , 2014 , 61, 1466-73	5	5
199	Nanoscale three-dimensional imaging of the human myocyte. <i>Journal of Structural Biology</i> , 2014 , 188, 55-60	3.4	11
198	Mitochondrial depolarization and electrophysiological changes during ischemia in the rabbit and human heart. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2014 , 307, H1178-86	5.2	10
197	Patient-specific flexible and stretchable devices for cardiac diagnostics and therapy. <i>Progress in Biophysics and Molecular Biology</i> , 2014 , 115, 244-51	4.7	42
196	A century of optocardiography. <i>IEEE Reviews in Biomedical Engineering</i> , 2014 , 7, 115-25	6.4	22

195	c-Src kinase inhibition reduces arrhythmia inducibility and connexin43 dysregulation after myocardial infarction. <i>Journal of the American College of Cardiology</i> , 2014 , 63, 928-34	15.1	30
194	Multistage electrotherapy delivered through chronically-implanted leads terminates atrial fibrillation with lower energy than a single biphasic shock. <i>Journal of the American College of Cardiology</i> , 2014 , 63, 40-8	15.1	20
193	Mechanisms of Atrioventricular Nodal Excitability and Propagation 2014 , 275-285		1
192	Human cardiac systems electrophysiology and arrhythmogenesis: iteration of experiment and computation. <i>Europace</i> , 2014 , 16 Suppl 4, iv77-iv85	3.9	4
191	Tuning the electrical properties of the heart by differential trafficking of KATP ion channel complexes. <i>Journal of Cell Science</i> , 2014 , 127, 2106-19	5.3	32
190	Sensors: Stretchable, Multiplexed pH Sensors With Demonstrations on Rabbit and Human Hearts Undergoing Ischemia (Adv. Healthcare Mater. 1/2014). <i>Advanced Healthcare Materials</i> , 2014 , 3, 2-2	10.1	3
189	Adverse remodeling of the electrophysiological response to ischemia-reperfusion in human heart failure is associated with remodeling of metabolic gene expression. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2014 , 7, 875-82	6.4	18
188	Direct reprogramming of mouse fibroblasts to cardiomyocyte-like cells using Yamanaka factors on engineered poly(ethylene glycol) (PEG) hydrogels. <i>Biomaterials</i> , 2013 , 34, 6559-71	15.6	38
187	Measuring Dynamic 3D Micro-Structures Using a Superfast Digital Binary Phase-Shifting Technique 2013 ,		1
186	Mitochondrial dysfunction causing cardiac sodium channel downregulation in cardiomyopathy. <i>Journal of Molecular and Cellular Cardiology</i> , 2013 , 54, 25-34	5.8	61
185	Functional roles of KATP channel subunits in metabolic inhibition. <i>Journal of Molecular and Cellular Cardiology</i> , 2013 , 62, 90-8	5.8	10
184	Mechanisms of cardiac and renal dysfunction in patients dying of sepsis. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2013 , 187, 509-17	10.2	303
183	3D absolute shape measurement of live rabbit hearts with a superfast two-frequency phase-shifting technique. <i>Optics Express</i> , 2013 , 21, 5822-32	3.3	60
182	Three-dimensional printing physiology laboratory technology. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2013 , 305, H1569-73	5.2	19
181	Gender differences in electrophysiological gene expression in failing and non-failing human hearts. <i>PLoS ONE</i> , 2013 , 8, e54635	3.7	38
180	mRNA expression levels in failing human hearts predict cellular electrophysiological remodeling: a population-based simulation study. <i>PLoS ONE</i> , 2013 , 8, e56359	3.7	50
179	Diabetes increases mortality after myocardial infarction by oxidizing CaMKII. <i>Journal of Clinical Investigation</i> , 2013 , 123, 1262-74	15.9	179
178	Diabetes increases mortality after myocardial infarction by oxidizing CaMKII. <i>Journal of Clinical Investigation</i> , 2013 , 123, 2333-2333	15.9	2

177	A fully implantable pacemaker for the mouse: from battery to wireless power. <i>PLoS ONE</i> , 2013 , 8, e76291,7	26
176	Estimation of Conductivity Tensors from Human Ventricular Optical Mapping Recordings. <i>Lecture Notes in Computer Science</i> , 2013 , 224-231	0.9
175	The role of dynamic instability and wavelength in arrhythmia maintenance as revealed by panoramic imaging with blebbistatin vs. 2,3-butanedione monoxime. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 302, H262-9	5.2 61
174	A novel low-energy electrotherapy that terminates ventricular tachycardia with lower energy than a biphasic shock when antitachycardia pacing fails. <i>Journal of the American College of Cardiology</i> , 2012 , 60, 2393-8	15.1 36
173	Conduction remodeling in human end-stage nonischemic left ventricular cardiomyopathy. <i>Circulation</i> , 2012 , 125, 1835-47	16.7 116
172	Processing and analysis of cardiac optical mapping data obtained with potentiometric dyes. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H753-65	5.2 131
171	Longitudinal study of cardiac remodeling in rabbits following infarction. <i>Canadian Journal of Cardiology</i> , 2012 , 28, 230-8	3.8 8
170	Three-dimensional mechanisms of increased vulnerability to electric shocks in myocardial infarction: altered virtual electrode polarizations and conduction delay in the peri-infarct zone. <i>Journal of Physiology</i> , 2012 , 590, 4537-51	3.9 32
169	Optical Mapping of the Sinoatrial Node and Atrioventricular Node 2012 , 79-89	1
168	Remodeling of calcium handling in human heart failure. <i>Advances in Experimental Medicine and Biology</i> , 2012 , 740, 1145-74	3.6 69
167	Structure-function relationship in the sinus and atrioventricular nodes. <i>Pediatric Cardiology</i> , 2012 , 33, 890-9	2.1 32
166	Long-term culture of HL-1 cardiomyocytes in modular poly(ethylene glycol) microsphere-based scaffolds crosslinked in the phase-separated state. <i>Acta Biomaterialia</i> , 2012 , 8, 31-40	10.8 35
165	Hypothermia-induced spatially discordant action potential duration alternans and arrhythmogenesis in nonhibernating versus hibernating mammals. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H1035-46	5.2 27
164	Right ventricular arrhythmogenesis in failing human heart: the role of conduction and repolarization remodeling. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H1426-34	5.2 16
163	Mapping cardiac surface mechanics with structured light imaging. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H712-20	5.2 28
162	Focal but reversible diastolic sheet dysfunction reflects regional calcium mishandling in dystrophic mdx mouse hearts. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H559-68	5.2 18
161	Electroporation induced by internal defibrillation shock with and without recovery in intact rabbit hearts. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2012 , 303, H439-49	5.2 20
160	The future of optical mapping is bright: RE: review on: "Optical Imaging of Voltage and Calcium in Cardiac Cells and Tissues" by Herron, Lee, and Jalife. <i>Circulation Research</i> , 2012 , 110, e70-1	15.7 12

159	Quantification of fiber orientation in the canine atrial pacemaker complex using optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2012 , 17, 071309	3.5	25
158	Arrhythmogenic remodelling of activation and repolarization in the failing human heart. <i>Europace</i> , 2012 , 14 Suppl 5, v50-v57	3.9	13
157	Three potential mechanisms for failure of high intensity focused ultrasound ablation in cardiac tissue. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2012 , 5, 409-16	6.4	19
156	CD36 protein influences myocardial Ca ²⁺ homeostasis and phospholipid metabolism: conduction anomalies in CD36-deficient mice during fasting. <i>Journal of Biological Chemistry</i> , 2012 , 287, 38901-12	5.4	26
155	Cardiac Electrical Alternans and Ventricular Fibrillation During Hypothermia in Non-Hibernating Versus Hibernating Animals: Role of Propagation Velocity and Dispersion of Repolarization 2012 , 293-303		
154	Conduction abnormalities in metabolically stressed CD36 deficient mouse. <i>FASEB Journal</i> , 2012 , 26, 137.8.9		
153	A Method for Measuring 3D Cardiac Surface Mechanics with High-Speed Structured Light Imaging. <i>FASEB Journal</i> , 2012 , 26, 864.18	0.9	
152	Novel stretchable electronics platform for simultaneous high-density electrical and optical recordings from ex vivo hearts. <i>FASEB Journal</i> , 2012 , 26, 1053.7	0.9	
151	Multiparametric optical mapping of the Langendorff-perfused rabbit heart. <i>Journal of Visualized Experiments</i> , 2011 ,	1.6	18
150	Molecular architecture of the human specialised atrioventricular conduction axis. <i>Journal of Molecular and Cellular Cardiology</i> , 2011 , 50, 642-51	5.8	77
149	Effects of KATP channel openers diazoxide and pinacidil in coronary-perfused atria and ventricles from failing and non-failing human hearts. <i>Journal of Molecular and Cellular Cardiology</i> , 2011 , 51, 215-25	5.8	74
148	Anatomic localization and autonomic modulation of atrioventricular junctional rhythm in failing human hearts. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2011 , 4, 515-25	6.4	30
147	Optical mapping of action potentials and calcium transients in the mouse heart. <i>Journal of Visualized Experiments</i> , 2011 ,	1.6	36
146	Spatiotemporal control of heart rate in a rabbit heart. <i>Journal of Electrocardiology</i> , 2011 , 44, 626-34	1.4	20
145	Rabbit-specific ventricular model of cardiac electrophysiological function including specialized conduction system. <i>Progress in Biophysics and Molecular Biology</i> , 2011 , 107, 90-100	4.7	54
144	Minimum Information about a Cardiac Electrophysiology Experiment (MICEE): standardised reporting for model reproducibility, interoperability, and data sharing. <i>Progress in Biophysics and Molecular Biology</i> , 2011 , 107, 4-10	4.7	45
143	Termination of sustained atrial flutter and fibrillation using low-voltage multiple-shock therapy. <i>Heart Rhythm</i> , 2011 , 8, 101-8	6.7	36
142	Low-energy multistage atrial defibrillation therapy terminates atrial fibrillation with less energy than a single shock. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2011 , 4, 917-25	6.4	31

141	Transmural heterogeneity and remodeling of ventricular excitation-contraction coupling in human heart failure. <i>Circulation</i> , 2011 , 123, 1881-90	16.7	117
140	Role of Pyk2 in cardiac arrhythmogenesis. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2011 , 301, H975-83	5.2	22
139	Oxidized CaMKII causes cardiac sinus node dysfunction in mice. <i>Journal of Clinical Investigation</i> , 2011 , 121, 3277-88	15.9	154
138	Molecular Basis of the Electrical Activity of the Atrioventricular Junction and Purkinje Fibres 2011 , 211-230		1
137	Anatomy and electrophysiology of the human AV node. <i>PACE - Pacing and Clinical Electrophysiology</i> , 2010 , 33, 754-62	1.6	60
136	Mechanisms of fibrillation: neurogenic or myogenic? Reentrant or focal? Multiple or single? Still puzzling after 160 years of inquiry. <i>Journal of Cardiovascular Electrophysiology</i> , 2010 , 21, 1274-5	2.7	4
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