Peter Kohl

List of Publications by Year
in descending order

214 papers	11,191 citations	28274 55 h-index	36028 97 g-index
227 all docs	227 docs citations	227 times ranked	10643 citing authors

#	Article	IF	Citations
1	Structural and functional characterisation of cardiac fibroblasts. Cardiovascular Research, 2005, 65, 40-51.	3.8	782
2	Macrophages Facilitate Electrical Conduction in the Heart. Cell, 2017, 169, 510-522.e20.	28.9	703
3	Fibroblast Network in Rabbit Sinoatrial Node. Circulation Research, 2004, 94, 828-835.	4.5	317
4	Novel therapeutic strategies targeting fibroblasts and fibrosis in heart disease. Nature Reviews Drug Discovery, 2016, 15, 620-638.	46.4	251
5	Stretch-induced changes in heart rate and rhythm: clinical observations, experiments and mathematical models. Progress in Biophysics and Molecular Biology, 1999, 71, 91-138.	2.9	249
6	Mitochondrial Reactive Oxygen Species in Lipotoxic Hearts Induce Post-Translational Modifications of AKAP121, DRP1, and OPA1 That Promote Mitochondrial Fission. Circulation Research, 2018, 122, 58-73.	4.5	225
7	Electrotonic coupling of excitable and nonexcitable cells in the heart revealed by optogenetics. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 14852-14857.	7.1	217
8	Electrical coupling of fibroblasts and myocytes: relevance for cardiac propagation. Journal of Electrocardiology, 2005, 38, 45-50.	0.9	206
9	Axial Stretch of Rat Single Ventricular Cardiomyocytes Causes an Acute and Transient Increase in Ca ²⁺ Spark Rate. Circulation Research, 2009, 104, 787-795.	4.5	199
10	Systems Biology: An Approach. Clinical Pharmacology and Therapeutics, 2010, 88, 25-33.	4.7	198
11	Development of an anatomically detailed MRI-derived rabbit ventricular model and assessment of its impact on simulations of electrophysiological function. American Journal of Physiology - Heart and Circulatory Physiology, 2010, 298, H699-H718.	3.2	192
12	Simultaneous Voltage and Calcium Mapping of Genetically Purified Human Induced Pluripotent Stem Cellâ€“Derived Cardiac Myocyte Monolayers. Circulation Research, 2012, 110, 1556-1563.	4.5	187
13	Cardiac Mechano-Gated Ion Channels and Arrhythmias. Circulation Research, 2016, 118, 311-329.	4.5	173
14	Fibroblastâ€“myocyte electrotonic coupling: Does it occur in native cardiac tissue?. Journal of Molecular and Cellular Cardiology, 2014, 70, 37-46.	1.9	171
15	Effects of fibroblast-myocyte coupling on cardiac conduction and vulnerability to reentry: A computational study. Heart Rhythm, 2009, 6, 1641-1649.	0.7	163
16	Palette of fluorinated voltage-sensitive hemicyanine dyes. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20443-20448.	7.1	162
17	Spatially and temporally distinct expression of fibroblast connexins after sheep ventricular infarction. Cardiovascular Research, 2004, 62, 415-425.	3.8	157
18	Systems biology and the virtual physiological human. Molecular Systems Biology, 2009, 5, 292.	7.2	154

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19	Part 5: Adult Basic Life Support: 2010 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science With Treatment Recommendations. Circulation, 2010, 122, S298-S324.	1.6	145
20	A vision and strategy for the virtual physiological human in 2010 and beyond. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2595-2614.	3.4	136
21	The Living Scar â€“ Cardiac Fibroblasts and the Injured Heart. Trends in Molecular Medicine, 2016, 22, 99-114.	6.7	136
22	Force-length relations in isolated intact cardiomyocytes subjected to dynamic changes in mechanical load. American Journal of Physiology - Heart and Circulatory Physiology, 2007, 292, H1487-H1497.	3.2	135
23	Generation of histo-anatomically representative models of the individual heart: tools and application. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2257-2292.	3.4	135
24	Axial tubule junctions control rapid calcium signaling in atria. Journal of Clinical Investigation, 2016, 126, 3999-4015.	8.2	118
25	Sudden cardiac death by Commotio cordis: role of mechanoâ€“electric feedback. Cardiovascular Research, 2001, 50, 280-289.	3.8	117
26	Effects of mechanosensitive ion channels on ventricular electrophysiology: experimental and theoretical models. Experimental Physiology, 2006, 91, 307-321.	2.0	115
27	Imageâ€based models of cardiac structure in health and disease. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2010, 2, 489-506.	6.6	113
28	Selected Contribution: Axial stretch increases spontaneous pacemaker activity in rabbit isolated sinoatrial node cells. Journal of Applied Physiology, 2000, 89, 2099-2104.	2.5	99
29	Histo-anatomical structure of the living isolated rat heart in two contraction states assessed by diffusion tensor MRI. Progress in Biophysics and Molecular Biology, 2012, 110, 319-330.	2.9	96
30	Cardiac Mechano-Electric Coupling: Acute Effects of Mechanical Stimulation on Heart Rate and Rhythm. Physiological Reviews, 2021, 101, 37-92.	28.8	96
31	Heterogeneous Cell Coupling in the Heart. Circulation Research, 2003, 93, 381-383.	4.5	93
32	Rediscovering commotio cordis. Lancet, The, 2001, 357, 1195-1197.	13.7	91
33	Application of cardiac electrophysiology simulations to proâ€arrhythmic safety testing. British Journal of Pharmacology, 2012, 167, 932-945.	5.4	90
34	Three-Dimensional Models of Individual Cardiac Histoanatomy: Tools and Challenges. Annals of the New York Academy of Sciences, 2006, 1080, 301-319.	3.8	89
35	Fibroblastâ€“myocyte coupling in the heart: Potential relevance for therapeutic interventions. Journal of Molecular and Cellular Cardiology, 2016, 91, 238-246.	1.9	87
36	Structural and Functional Coupling of Cardiac Myocytes and Fibroblasts. , 2006, 42, 132-149.		86

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37	Computational modelling of biological systems: tools and visions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2000, 358, 579-610.	3.4	84
38	Cardiac mechano-electric feedback: past, present, and prospect. Progress in Biophysics and Molecular Biology, 2003, 82, 3-9.	2.9	83
39	Mechano-electric interactions in heterogeneous myocardium: development of fundamental experimental and theoretical models. Progress in Biophysics and Molecular Biology, 2003, 82, 207-220.	2.9	81
40	Temporal pixel multiplexing for simultaneous high-speed, high-resolution imaging. Nature Methods, 2010, 7, 209-211.	19.0	79
41	Micropatterned cell cultures on elastic membranes as an in vitro model of myocardium. Nature Protocols, 2006, 1, 1379-1391.	12.0	77
42	Primary cilia defects causing mitral valve prolapse. Science Translational Medicine, 2019, 11, .	12.4	76
43	Minimum Information about a Cardiac Electrophysiology Experiment (MICEE): Standardised reporting for model reproducibility, interoperability, and data sharing. Progress in Biophysics and Molecular Biology, 2011, 107, 4-10.	2.9	75
44	Oneâ€Dimensional Rabbit Sinoatrial Node Models:. Journal of Cardiovascular Electrophysiology, 2003, 14, S121-S132.	1.7	74
45	A vision and strategy for the virtual physiological human: 2012 update. Interface Focus, 2013, 3, 20130004.	3.0	74
46	Combining wet and dry research: experience with model development for cardiac mechano-electric structure-function studies. Cardiovascular Research, 2013, 97, 601-611.	3.8	72
47	Microstructured Cocultures of Cardiac Myocytes and Fibroblasts: A Two-Dimensional<i>In Vitro</i>Model of Cardiac Tissue. Microscopy and Microanalysis, 2005, 11, 249-259.	0.4	71
48	Potassium channel-based optogenetic silencing. Nature Communications, 2018, 9, 4611.	12.8	71
49	Mechano-sensitivity of cardiac pacemaker function: Pathophysiological relevance, experimental implications, and conceptual integration with other mechanisms of rhythmicity. Progress in Biophysics and Molecular Biology, 2012, 110, 257-268.	2.9	70
50	Rearrangement of Atrial Bundle Architecture and Consequent Changes in Anisotropy of Conduction Constitute the 3-Dimensional Substrate for Atrial Fibrillation. Circulation: Arrhythmia and Electrophysiology, 2013, 6, 967-975.	4.8	67
51	CELLULAR OPEN RESOURCE (COR): A PUBLIC CELLML BASED ENVIRONMENT FOR MODELING BIOLOGICAL FUNCTION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 3579-3590.	1.7	65
52	Sodium permeable and â€œhypersensitiveâ€•<scp>TREK</scp> â€•1 channels cause ventricular tachycardia. EMBO Molecular Medicine, 2017, 9, 403-414.	6.9	65
53	Single-sensor system for spatially resolved, continuous, and multiparametric optical mapping of cardiac tissue. Heart Rhythm, 2011, 8, 1482-1491.	0.7	64
54	Rabbit-specific ventricular model of cardiac electrophysiological function including specialized conduction system. Progress in Biophysics and Molecular Biology, 2011, 107, 90-100.	2.9	62

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55	Mechanosensitive connective tissue: potential influence on heart rhythm. Cardiovascular Research, 1996, 32, 62-68.	3.8	61
56	Fibroblastâ€"myocyte connections in the heart. Heart Rhythm, 2012, 9, 461-464.	0.7	61
57	The NSL complex maintains nuclear architecture stability via lamin A/C acetylation. Nature Cell Biology, 2019, 21, 1248-1260.	10.3	61
58	The Systems Biology Approach to Drug Development: Application to Toxicity Assessment of Cardiac Drugs. Clinical Pharmacology and Therapeutics, 2010, 88, 130-134.	4.7	60
59	High resolution structural evidence suggests the Sarcoplasmic Reticulum forms microdomains with Acidic Stores (lysosomes) in the heart. Scientific Reports, 2017, 7, 40620.	3.3	59
60	Species- and Preparation-Dependence of Stretch Effects on Sino-Atrial Node Pacemaking. Annals of the New York Academy of Sciences, 2005, 1047, 324-335.	3.8	58
61	Molecular candidates for cardiac stretch-activated ion channels. Global Cardiology Science & Practice, 2014, 2014, 19.	0.4	58
62	Cardiac mechano-electric coupling research: Fifty years of progress and scientific innovation. Progress in Biophysics and Molecular Biology, 2014, 115, 71-75.	2.9	58
63	Effect of stretch-activated channels on defibrillation efficacy. Heart Rhythm, 2004, 1, 67-77.	0.7	57
64	Effects of acute ventricular volume manipulation on in situ cardiomyocyte cell membrane configuration. Progress in Biophysics and Molecular Biology, 2003, 82, 221-227.	2.9	56
65	Induction of ventricular arrhythmias following mechanical impact: A simulation study in 3D. Journal of Molecular Histology, 2004, 35, 679-686.	2.2	56
66	Dimensionality in cardiac modelling. Progress in Biophysics and Molecular Biology, 2005, 87, 47-66.	2.9	52
67	Cardiac tissue slices: preparation, handling, and successful optical mapping. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H1112-H1125.	3.2	52
68	Utility of pre-cordial thump for treatment of out of hospital cardiac arrest: A prospective study. Resuscitation, 2009, 80, 17-23.	3.0	49
69	Caveolae in Rabbit Ventricular Myocytes: Distribution and Dynamic Diminution after CellÂIsolation. Biophysical Journal, 2017, 113, 1047-1059.	0.5	49
70	Extent and spatial distribution of left atrial arrhythmogenic sites, late gadolinium enhancement at magnetic resonance imaging, and low-voltage areas in patients with persistent atrial fibrillation: comparison of imaging vs. electrical parameters of fibrosis and arrhythmogenesis. Europace, 2019, 21, 1484-1493.	1.7	49
71	Cell-accurate optical mapping across the entire developing heart. ELife, 2017, 6, .	6.0	48
72	Mechanical Induction of Arrhythmias during Ventricular Repolarization: Modeling Cellular Mechanisms and Their Interaction in Two Dimensions. Annals of the New York Academy of Sciences, 2004, 1015, 133-143.	3.8	47

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73	Images as drivers of progress in cardiac computational modelling. Progress in Biophysics and Molecular Biology, 2014, 115, 198-212.	2.9	47
74	Resolving Fine Cardiac Structures in Rats with High-Resolution Diffusion Tensor Imaging. Scientific Reports, 2016, 6, 30573.	3.3	47
75	Rabbit models of cardiac mechano-electric and mechano-mechanical coupling. Progress in Biophysics and Molecular Biology, 2016, 121, 110-122.	2.9	46
76	Quantitative assessment of passive electrical properties of the cardiac T-tubular system by FRAP microscopy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5737-5742.	7.1	46
77	Axial stretch enhances sarcoplasmic reticulum Ca2+ leak and cellular Ca2+ reuptake in guinea pig ventricular myocytes: Experiments and models. Progress in Biophysics and Molecular Biology, 2008, 97, 298-311.	2.9	45
78	Cellular Open Resource (COR): current status and future directions. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1885-1905.	3.4	45
79	Myocardial ischemia lowers precordial thump efficacy: An inquiry into mechanisms using three-dimensional simulations. Heart Rhythm, 2006, 3, 179-186.	0.7	44
80	MECHANICAL INTERACTION OF HETEROGENEOUS CARDIAC MUSCLE SEGMENTS IN SILICO: EFFECTS ON Ca2+ HANDLING AND ACTION POTENTIAL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 3757-3782.	1.7	43
81	Piezo1 Channels Contribute to the Regulation of Human Atrial Fibroblast Mechanical Properties and Matrix Stiffness Sensing. Cells, 2021, 10, 663.	4.1	43
82	Role of the 293b-sensitive, slowly activating delayed rectifier potassium current, iKs, in pacemaker activity of rabbit isolated sino-atrial node cells. Cardiovascular Research, 2002, 53, 68-79.	3.8	42
83	Assessment of contractility in intact ventricular cardiomyocytes using the dimensionless â€˜Frankâ€“Starling Gainâ€™ index. Pflugers Archiv European Journal of Physiology, 2011, 462, 39-48.	2.8	42
84	Mathematical models in physiology. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 1099-1106.	3.4	41
85	Cardiac myocyteâ€“nonmyocyte electrotonic coupling: Implications for ventricular arrhythmogenesis. Heart Rhythm, 2007, 4, 233-235.	0.7	41
86	Editorial. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 2975-2978.	3.4	39
87	Inhibition of macrophage proliferation dominates plaque regression in response to cholesterol lowering. Basic Research in Cardiology, 2020, 115, 78.	5.9	37
88	Load-dependent effects of apelin on murine cardiomyocytes. Progress in Biophysics and Molecular Biology, 2017, 130, 333-343.	2.9	36
89	Cardiac Electrophysiological Effects of Light-Activated Chloride Channels. Frontiers in Physiology, 2018, 9, 1806.	2.8	36
90	In Situ Optical Mapping of Voltage and Calcium in the Heart. PLoS ONE, 2012, 7, e42562.	2.5	36

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91	Swellingâ€induced decrease in spontaneous pacemaker activity of rabbit isolated sinoâ€atrial node cells. Acta Physiologica Scandinavica, 1998, 164, 1-12.	2.2	35
92	Force Generation for Locomotion of Vertebrates: Skeletal Muscle Overview. IEEE Journal of Oceanic Engineering, 2004, 29, 684-691.	3.8	35
93	Modulatory effect of calmodulin-dependent kinase II (CaMKII) on sarcoplasmic reticulum Ca 2+ handling and intervalâ€“force relations: a modelling study. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2006, 364, 1107-1133.	3.4	35
94	Mechanically Induced Ectopy via Stretch-Activated Cation-Nonselective Channels Is Caused by Local Tissue Deformation and Results in Ventricular Fibrillation if Triggered on the Repolarization Wave Edge (Commotio Cordis). Circulation: Arrhythmia and Electrophysiology, 2017, 10, .	4.8	35
95	Electron tomography of rabbit cardiomyocyte three-dimensional ultrastructure. Progress in Biophysics and Molecular Biology, 2016, 121, 77-84.	2.9	34
96	Myocardial tissue slices: organotypic pseudo-2D models for cardiac research & development. Future Cardiology, 2009, 5, 425-430.	1.2	32
97	Simultaneous measurement and modulation of multiple physiological parameters in the isolated heart using optical techniques. Pflugers Archiv European Journal of Physiology, 2012, 464, 403-414.	2.8	32
98	Influence of left atrial size on P-wave morphology: differential effects of dilation and hypertrophy. Europace, 2018, 20, iii36-iii44.	1.7	32
99	Progressive changes in <i>T</i>₁, <i>T</i>₂ and leftâ€ventricular histoâ€architecture in the fixed and embedded rat heart. NMR in Biomedicine, 2011, 24, 836-843.	2.8	31
100	Fast Measurement of Sarcomere Length and Cell Orientation in Langendorff-Perfused Hearts Using Remote Focusing Microscopy. Circulation Research, 2013, 113, 863-870.	4.5	30
101	Mechanoâ€electric and mechanoâ€chemoâ€transduction in cardiomyocytes. Journal of Physiology, 2020, 598, 1285-1305.	2.9	30
102	Passive myocardial mechanical properties: meaning, measurement, models. Biophysical Reviews, 2021, 13, 587-610.	3.2	30
103	Optogenetic targeting of cardiac myocytes and non-myocytes: Tools, challenges and utility. Progress in Biophysics and Molecular Biology, 2017, 130, 140-149.	2.9	28
104	Cardiac fibroblasts. Herzschrittmachertherapie Und Elektrophysiologie, 2018, 29, 62-69.	0.8	27
105	Small Conductance Ca2 +-Activated K+ (SK) Channel mRNA Expression in Human Atrial and Ventricular Tissue: Comparison Between Donor, Atrial Fibrillation and Heart Failure Tissue. Frontiers in Physiology, 2021, 12, 650964.	2.8	27
106	Sub-microscopic analysis of t-tubule geometry in living cardiac ventricular myocytes using a shape-based analysis method. Journal of Molecular and Cellular Cardiology, 2017, 108, 1-7.	1.9	26
107	Beat-by-Beat Cardiomyocyte T-Tubule Deformation Drives Tubular Content Exchange. Circulation Research, 2021, 128, 203-215.	4.5	26
108	Piezo1 and BKCa channels in human atrial fibroblasts: Interplay and remodelling in atrial fibrillation. Journal of Molecular and Cellular Cardiology, 2021, 158, 49-62.	1.9	26

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109	Cardiac cellular heterogeneity and remodelling. Cardiovascular Research, 2004, 64, 195-197.	3.8	25
110	Sinoatrial Node Structure, Mechanics, Electrophysiology and the Chronotropic Response to Stretch in Rabbit and Mouse. Frontiers in Physiology, 2020, 11, 809.	2.8	25
111	Systems biology of the heart: hype or hope?. Annals of the New York Academy of Sciences, 2011, 1245, 40-43.	3.8	24
112	Mechanical modulation of the transverse tubular system of ventricular cardiomyocytes. Progress in Biophysics and Molecular Biology, 2012, 110, 218-225.	2.9	24
113	Mapping cardiac microstructure of rabbit heart in different mechanical states by high resolution diffusion tensor imaging: A proof-of-principle study. Progress in Biophysics and Molecular Biology, 2016, 121, 85-96.	2.9	24
114	Junctophilin-2 expression rescues atrial dysfunction through polyadic junctional membrane complex biogenesis. JCI Insight, 2019, 4, .	5.0	23
115	Three-dimensional histology: tools and application to quantitative assessment of cell-type distribution in rabbit heart. Europace, 2014, 16, iv86-iv95.	1.7	22
116	Living cardiac tissue slices: An organotypic pseudo two-dimensional model for cardiac biophysics research. Progress in Biophysics and Molecular Biology, 2014, 115, 314-327.	2.9	22
117	Prolongation of atrio-ventricular node conduction in a rabbit model of ischaemic cardiomyopathy: Role of fibrosis and connexin remodelling. Journal of Molecular and Cellular Cardiology, 2016, 94, 54-64.	1.9	22
118	Quantitative Study of the Effect of Tissue Microstructure on Contraction in a Computational Model of Rat Left Ventricle. PLoS ONE, 2014, 9, e92792.	2.5	20
119	Interrogation of living myocardium in multiple static deformation states with diffusion tensor and diffusion spectrum imaging. Progress in Biophysics and Molecular Biology, 2014, 115, 213-225.	2.9	19
120	The cardiac muscle duplex as a method to study myocardial heterogeneity. Progress in Biophysics and Molecular Biology, 2014, 115, 115-128.	2.9	19
121	Mechano-electric heterogeneity of the myocardium as a paradigm of its function. Progress in Biophysics and Molecular Biology, 2016, 120, 249-254.	2.9	19
122	Species differences in the morphology of transverse tubule openings in cardiomyocytes. Europace, 2018, 20, iii120-iii124.	1.7	19
123	Nano-scale morphology of cardiomyocyte t-tubule/sarcoplasmic reticulum junctions revealed by ultra-rapid high-pressure freezing and electron tomography. Journal of Molecular and Cellular Cardiology, 2021, 153, 86-92.	1.9	19
124	Novel insights into the electrophysiology of murine cardiac macrophages: relevance of voltage-gated potassium channels. Cardiovascular Research, 2022, 118, 798-813.	3.8	18
125	Electron-conformational model of ryanodine receptor lattice dynamics. Progress in Biophysics and Molecular Biology, 2006, 90, 88-103.	2.9	17
126	The virtual physiological human: computer simulation for integrative biomedicine I. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2591-2594.	3.4	17

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127	In Vivo Postâ€"Cardiac Arrest Myocardial Dysfunction Is Supported by Ca ²⁺ /Calmodulin-Dependent Protein Kinase IIâ€"Mediated Calcium Long-Term Potentiation and Mitigated by Alda-1, an Agonist of Aldehyde Dehydrogenase Type 2. Circulation, 2016, 134, 961-977.	1.6	17
128	Extracorporeal cardiac mechanical stimulation: precordial thump and precordial percussion. British Medical Bulletin, 2010, 93, 161-177.	6.9	16
129	Virtual physiological human: training challenges. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2841-2851.	3.4	15
130	Comparing maximum rate and sustainability of pacing by mechanical vs. electrical stimulation in the Langendorff-perfused rabbit heart. Europace, 2016, 18, iv85-iv93.	1.7	15
131	Transformation diffusion reconstruction of three-dimensional histology volumes from two-dimensional image stacks. Medical Image Analysis, 2017, 38, 184-204.	11.6	15
132	Monte Carlo Simulations of Diffusion Weighted MRI in Myocardium: Validation and Sensitivity Analysis. IEEE Transactions on Medical Imaging, 2017, 36, 1316-1325.	8.9	15
133	Comparative study of rabbit sino-atrial node cell models. Chaos, Solitons and Fractals, 2002, 13, 1623-1630.	5.1	14
134	Hybrid duplex: a novel method to study the contractile function of heterogeneous myocardium. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H2733-H2746.	3.2	14
135	Soft tissue impact characterisation kit (STICK) for ex situ investigation of heart rhythm responses to acute mechanical stimulation. Progress in Biophysics and Molecular Biology, 2006, 90, 444-468.	2.9	14
136	Solute movement in the t-tubule system of rabbit and mouse cardiomyocytes. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7073-E7080.	7.1	14
137	Human Atrial Fibroblast Adaptation to Heterogeneities in Substrate Stiffness. Frontiers in Physiology, 2019, 10, 1526.	2.8	14
138	The Virtual Physiological Human. Interface Focus, 2011, 1, 281-285.	3.0	13
139	Opportunities and challenges of current electrophysiology research: a plea to establish 'translational electrophysiology' curricula. Europace, 2015, 17, 825-833.	1.7	13
140	Expression and function of mechanosensitive ion channels in human valve interstitial cells. PLoS ONE, 2020, 15, e0240532.	2.5	13
141	Evaluation of nonâ€Gaussian diffusion in cardiac MRI. Magnetic Resonance in Medicine, 2017, 78, 1174-1186.	3.0	12
142	Life and mechanosensitivity. Progress in Biophysics and Molecular Biology, 2008, 97, 159-162.	2.9	11
143	The virtual physiological human: tools and applications I. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1817-1821.	3.4	11
144	The virtual physiological human: computer simulation for integrative biomedicine II. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2837-2839.	3.4	11

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145	Spatial regulation of intracellular pH in multicellular strands of neonatal rat cardiomyocytes. Cardiovascular Research, 2010, 85, 729-738.	3.8	11
146	The Role of Blood Vessels in Rabbit Propagation Dynamics and Cardiac Arrhythmias. Lecture Notes in Computer Science, 2009, , 268-276.	1.3	11
147	Cardiac electrophysiological imaging systems scalable for high-throughput drug testing. Pflugers Archiv European Journal of Physiology, 2012, 464, 645-656.	2.8	10
148	Integrative approaches to computational biomedicine. Interface Focus, 2013, 3, 20130003.	3.0	10
149	Organotypic myocardial slices as model system to study heterocellular interactions. Cardiovascular Research, 2018, 114, 3-6.	3.8	9
150	The Lectin LecA Sensitizes the Human Stretch-Activated Channel TREK-1 but Not Piezo1 and Binds Selectively to Cardiac Non-myocytes. Frontiers in Physiology, 2020, 11, 457.	2.8	8
151	High Performance Computer Simulations of Cardiac Electrical Function Based on High Resolution MRI Datasets. Lecture Notes in Computer Science, 2008, , 571-580.	1.3	8
152	Digital Human Modelling: A Global Vision and a European Perspective. Lecture Notes in Computer Science, 2007, , 549-558.	1.3	8
153	Consecutive-Day Ventricular and Atrial Cardiomyocyte Isolations from the Same Heart: Shifting the Costâ€"Benefit Balance of Cardiac Primary Cell Research. Cells, 2022, 11, 233.	4.1	8
154	The virtual physiological human: tools and applications II. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2121-2123.	3.4	7
155	Microscopic magnetic resonance imaging reveals high prevalence of third coronary artery in human and rabbit heart. Europace, 2012, 14, v73-v81.	1.7	7
156	Structural and Functional Recoupling ofÂAtrial and Ventricular Myocardium. Journal of the American College of Cardiology, 2014, 64, 2586-2588.	2.8	7
157	A Novel Method for Quantifying the Contribution of Different Intracellular Mechanisms to Mechanically Induced Changes in Action Potential Characteristics. Lecture Notes in Computer Science, 2003, , 8-17.	1.3	6
158	Editorial. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2008, 366, 3223-3224.	3.4	6
159	Using high-resolution displays for high-resolution cardiac data. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 2667-2677.	3.4	6
160	Follow the white rabbit. Progress in Biophysics and Molecular Biology, 2016, 121, 75-76.	2.9	6
161	Genomic and physiological analyses of the zebrafish atrioventricular canal reveal molecular building blocks of the secondary pacemaker region. Cellular and Molecular Life Sciences, 2021, 78, 6669-6687.	5.4	6
162	Anti-arrhythmic effects of acute mechanical stimulation. , 2011, , 361-368.		6

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163	Novel Optics-Based Approaches for Cardiac Electrophysiology: A Review. Frontiers in Physiology, 2021, 12, 769586.	2.8	6
164	AN ITERATIVE METHOD FOR REGISTRATION OF HIGH-RESOLUTION CARDIAC HISTOANATOMICAL AND MRI IMAGES. , 2007, , .		5
165	Mechano-Electric Feedback in the Heart: Effects on Heart Rate and Rhythm. , 2011, , 133-151.		5
166	Off-patient assessment of pre-cordial impact mechanics among medical professionals in North-East Italy involved in emergency cardiac resuscitation. Progress in Biophysics and Molecular Biology, 2012, 110, 390-396.	2.9	5
167	A Bioreactor to Apply Multimodal Physical Stimuli to Cultured Cells. Methods in Molecular Biology, 2016, 1502, 21-33.	0.9	5
168	Quantitative collagen assessment in right ventricular myectomies from patients with tetralogy of Fallot. Europace, 2021, 23, i38-i47.	1.7	5
169	Mechanical triggers and facilitators of ventricular tachy-arrhythmias. , 2011, , 160-167.		5
170	Electron microscopy of cardiac 3D nanodynamics: form, function, future. Nature Reviews Cardiology, 2022, 19, 607-619.	13.7	5
171	Benchmarking of Cph1 Mutants and <i>Dr</i>BphP for Lightâ€Responsive Phytochromeâ€Based Hydrogels with Reversibly Adjustable Mechanical Properties. Advanced Biology, 2022, 6, e2000337.	2.5	5
172	P1-13. Heart Rhythm, 2006, 3, S111-S112.	0.7	4
173	3D Visualization of Cardiac Anatomical MRI Data with Para-Cellular Resolution. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 147-51.	0.5	4
174	Cardiac valve annulus manual segmentation using computer assisted visual feedback in three-dimensional image data. , 2010, 2010, 738-41.		4
175	Progress in Biophysics and Molecular Biology of the Beating Heart. Progress in Biophysics and Molecular Biology, 2012, 110, 151-153.	2.9	4
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