

Peter J Mohler

List of Publications by Year in descending order

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121
papers

5,181
citations

101384

36
h-index

98622

67
g-index

123
all docs

123
docs citations

123
times ranked

6958
citing authors

#	ARTICLE	IF	CITATIONS
1	A Dynamic Pathway for Calcium-Independent Activation of CaMKII by Methionine Oxidation. <i>Cell</i> , 2008, 133, 462-474.	13.5	951
2	Atrial fibrillation driven by micro-anatomic intramural re-entry revealed by simultaneous sub-epicardial and sub-endocardial optical mapping in explanted human hearts. <i>European Heart Journal</i> , 2015, 36, 2390-2401.	1.0	347
3	In Vivo Genome Editing Restores Dystrophin Expression and Cardiac Function in Dystrophic Mice. <i>Circulation Research</i> , 2017, 121, 923-929.	2.0	123
4	Three-dimensional Integrated Functional, Structural, and Computational Mapping to Define the Structural "Fingerprints" of Heart-specific Atrial Fibrillation Drivers in Human Heart Ex Vivo. <i>Journal of the American Heart Association</i> , 2017, 6, .	1.6	120
5	Ca ^v 1.2 ⁺ -subunit coordinates CaMKII-triggered cardiomyocyte death and afterdepolarizations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 4996-5000.	3.3	114
6	Ankyrin-G Coordinates Intercalated Disc Signaling Platform to Regulate Cardiac Excitability In Vivo. <i>Circulation Research</i> , 2014, 115, 929-938.	2.0	114
7	Neutralization of SARS-CoV-2 Omicron sub-lineages BA.1, BA.1.1, and BA.2. <i>Cell Host and Microbe</i> , 2022, 30, 1093-1102.e3.	5.1	114
8	Calsequestrin 2 deletion causes sinoatrial node dysfunction and atrial arrhythmias associated with altered sarcoplasmic reticulum calcium cycling and degenerative fibrosis within the mouse atrial pacemaker complex. <i>European Heart Journal</i> , 2015, 36, 686-697.	1.0	110
9	MG53-mediated cell membrane repair protects against acute kidney injury. <i>Science Translational Medicine</i> , 2015, 7, 279ra36.	5.8	103
10	Voltage-Gated Sodium Channel Phosphorylation at Ser571 Regulates Late Current, Arrhythmia, and Cardiac Function In Vivo. <i>Circulation</i> , 2015, 132, 567-577.	1.6	99
11	Assembly of the Cardiac Intercalated Disk during Pre- and Postnatal Development of the Human Heart. <i>PLoS ONE</i> , 2014, 9, e94722.	1.1	98
12	Cardiovascular risk of electronic cigarettes: a review of preclinical and clinical studies. <i>Cardiovascular Research</i> , 2020, 116, 40-50.	1.8	95
13	Role of late sodium current as a potential arrhythmogenic mechanism in the progression of pressure-induced heart disease. <i>Journal of Molecular and Cellular Cardiology</i> , 2013, 61, 111-122.	0.9	89
14	Adenosine-Induced Atrial Fibrillation. <i>Circulation</i> , 2016, 134, 486-498.	1.6	85
15	Glial ankyrins facilitate paranodal axoglial junction assembly. <i>Nature Neuroscience</i> , 2014, 17, 1673-1681.	7.1	82
16	Human sinoatrial node structure: 3D microanatomy of sinoatrial conduction pathways. <i>Progress in Biophysics and Molecular Biology</i> , 2016, 120, 164-178.	1.4	81
17	Ankyrin-G Directly Binds to Kinesin-1 to Transport Voltage-Gated Na ⁺ Channels into Axons. <i>Developmental Cell</i> , 2014, 28, 117-131.	3.1	80
18	Redundant and diverse intranodal pacemakers and conduction pathways protect the human sinoatrial node from failure. <i>Science Translational Medicine</i> , 2017, 9, .	5.8	76

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19	Molecular Mapping of Sinoatrial Node HCN Channel Expression in the Human Heart. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015, 8, 1219-1227.	2.1	72
20	Upregulation of Adenosine A1 Receptors Facilitates Sinoatrial Node Dysfunction in Chronic Canine Heart Failure by Exacerbating Nodal Conduction Abnormalities Revealed by Novel Dual-Sided Intramural Optical Mapping. <i>Circulation</i> , 2014, 130, 315-324.	1.6	70
21	Roles and regulation of protein phosphatase 2A (PP2A) in the heart. <i>Journal of Molecular and Cellular Cardiology</i> , 2016, 101, 127-133.	0.9	69
22	Nitric Oxide-Dependent Activation of CaMKII Increases Diastolic Sarcoplasmic Reticulum Calcium Release in Cardiac Myocytes in Response to Adrenergic Stimulation. <i>PLoS ONE</i> , 2014, 9, e87495.	1.1	63
23	Exercise training-induced bradycardia: evidence for enhanced parasympathetic regulation without changes in intrinsic sinoatrial node function. <i>Journal of Applied Physiology</i> , 2015, 118, 1344-1355.	1.2	62
24	Calcium-Activated Potassium Current Modulates Ventricular Repolarization in Chronic Heart Failure. <i>PLoS ONE</i> , 2014, 9, e108824.	1.1	62
25	Dysfunction in the β II Spectrin-Dependent Cytoskeleton Underlies Human Arrhythmia. <i>Circulation</i> , 2015, 131, 695-708.	1.6	56
26	Two-Pore K ⁺ Channel TREK1 Regulates Sinoatrial Node Membrane Excitability. <i>Journal of the American Heart Association</i> , 2016, 5, e002865.	1.6	52
27	Integration of High-Resolution Optical Mapping and 3-Dimensional Micro-Computed Tomographic Imaging to Resolve the Structural Basis of Atrial Conduction in the Human Heart. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015, 8, 1514-1517.	2.1	51
28	<i>SCN5A</i> variant that blocks fibroblast growth factor homologous factor regulation causes human arrhythmia. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 12528-12533.	3.3	51
29	Human Atrial Fibrillation Drivers Resolved With Integrated Functional and Structural Imaging to Benefit Clinical Mapping. <i>JACC: Clinical Electrophysiology</i> , 2018, 4, 1501-1515.	1.3	51
30	Oxidative stress creates a unique, CaMKII-mediated substrate for atrial fibrillation in heart failure. <i>JCI Insight</i> , 2018, 3, .	2.3	50
31	Role of CaMKII in cardiac arrhythmias. <i>Trends in Cardiovascular Medicine</i> , 2015, 25, 392-397.	2.3	49
32	Tubulin polymerization disrupts cardiac β -adrenergic regulation of late I _{Na} . <i>Cardiovascular Research</i> , 2014, 103, 168-177.	1.8	45
33	Protein phosphatase 2A regulatory subunit B56 β limits phosphatase activity in the heart. <i>Science Signaling</i> , 2015, 8, ra72.	1.6	45
34	Role of Oxidative Stress in Thyroid Hormone-Induced Cardiomyocyte Hypertrophy and Associated Cardiac Dysfunction: An Undisclosed Story. <i>Oxidative Medicine and Cellular Longevity</i> , 2015, 2015, 1-16.	1.9	44
35	Ankyrin-B dysfunction predisposes to arrhythmogenic cardiomyopathy and is amenable to therapy. <i>Journal of Clinical Investigation</i> , 2019, 129, 3171-3184.	3.9	42
36	Ankyrins and Spectrins in Cardiovascular Biology and Disease. <i>Frontiers in Physiology</i> , 2017, 8, 852.	1.3	40

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37	Impaired neuronal sodium channels cause intranodal conduction failure and reentrant arrhythmias in human sinoatrial node. <i>Nature Communications</i> , 2020, 11, 512.	5.8	39
38	Neuronal Na ⁺ channel blockade suppresses arrhythmogenic diastolic Ca ²⁺ release. <i>Cardiovascular Research</i> , 2015, 106, 143-152.	1.8	38
39	Plakophilin-2 Haploinsufficiency Causes Calcium Handling Deficits and Modulates the Cardiac Response Towards Stress. <i>International Journal of Molecular Sciences</i> , 2019, 20, 4076.	1.8	36
40	Î²IV-Spectrin regulates STAT3 targeting to tune cardiac response to pressure overload. <i>Journal of Clinical Investigation</i> , 2018, 128, 5561-5572.	3.9	36
41	Novel application of 3D contrast-enhanced CMR to define fibrotic structure of the human sinoatrial node in vivo. <i>European Heart Journal Cardiovascular Imaging</i> , 2017, 18, 862-869.	0.5	35
42	Whole Exome Sequencing in Atrial Fibrillation. <i>PLoS Genetics</i> , 2016, 12, e1006284.	1.5	35
43	Protein Phosphatase 2A Regulates Cardiac Na ⁺ Channels. <i>Circulation Research</i> , 2019, 124, 737-746.	2.0	34
44	Calmodulin kinase II regulates atrial myocyte late sodium current, calcium handling, and atrial arrhythmia. <i>Heart Rhythm</i> , 2020, 17, 503-511.	0.3	34
45	The evolving role of ankyrin-B in cardiovascular disease. <i>Heart Rhythm</i> , 2017, 14, 1884-1889.	0.3	33
46	MicroRNA Biophysically Modulates Cardiac Action Potential by Direct Binding to Ion Channel. <i>Circulation</i> , 2021, 143, 1597-1613.	1.6	33
47	EHD3-Dependent Endosome Pathway Regulates Cardiac Membrane Excitability and Physiology. <i>Circulation Research</i> , 2014, 115, 68-78.	2.0	32
48	The Frank-Starling mechanism involves deceleration of cross-bridge kinetics and is preserved in failing human right ventricular myocardium. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2015, 309, H2077-H2086.	1.5	32
49	Neuronal Na ⁺ Channels Are Integral Components of Pro-Arrhythmic Na ⁺ /Ca ²⁺ Signaling Nanodomain That Promotes Cardiac Arrhythmias During Î²-Adrenergic Stimulation. <i>JACC Basic To Translational Science</i> , 2016, 1, 251-266.	1.9	31
50	Cardiac Electrical and Structural Changes During Bacterial Infection: An Instructive Model to Study Cardiac Dysfunction in Sepsis. <i>Journal of the American Heart Association</i> , 2016, 5, .	1.6	31
51	Aberrant Expression of a Non-muscle RBFOX2 Isoform Triggers Cardiac Conduction Defects in Myotonic Dystrophy. <i>Developmental Cell</i> , 2020, 52, 748-763.e6.	3.1	31
52	Elevated local [Ca ²⁺] and CaMKII promote spontaneous Ca ²⁺ release in ankyrin-B-deficient hearts. <i>Cardiovascular Research</i> , 2016, 111, 287-294.	1.8	30
53	Silencing miR-370-3p rescues funny current and sinus node function in heart failure. <i>Scientific Reports</i> , 2020, 10, 11279.	1.6	30
54	CaMKII-dependent late Na ⁺ current increases electrical dispersion and arrhythmia in ischemia-reperfusion. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2018, 315, H794-H801.	1.5	29

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55	Etiology-dependent impairment of relaxation kinetics in right ventricular end-stage failing human myocardium. <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 121, 81-93.	0.9	28
56	Heart failure duration progressively modulates the arrhythmia substrate through structural and electrical remodeling. <i>Life Sciences</i> , 2015, 123, 61-71.	2.0	24
57	The role of β II spectrin in cardiac health and disease. <i>Life Sciences</i> , 2018, 192, 278-285.	2.0	24
58	Dysfunction of the β ² -spectrin-based pathway in human heart failure. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2016, 310, H1583-H1591.	1.5	23
59	Defining the molecular signatures of human right heart failure. <i>Life Sciences</i> , 2018, 196, 118-126.	2.0	23
60	Fibroblast growth factor-inducible 14 mediates macrophage infiltration in heart to promote pressure overload-induced cardiac dysfunction. <i>Life Sciences</i> , 2020, 247, 117440.	2.0	23
61	Fibroblast-Specific Proteotranscriptomes Reveal Distinct Fibrotic Signatures of Human Sinoatrial Node in Nonfailing and Failing Hearts. <i>Circulation</i> , 2021, 144, 126-143.	1.6	22
62	Differential involvement of various sources of reactive oxygen species in thyroxin-induced hemodynamic changes and contractile dysfunction of the heart and diaphragm muscles. <i>Free Radical Biology and Medicine</i> , 2015, 83, 252-261.	1.3	21
63	Optical Mapping-Validated Machine Learning Improves Atrial Fibrillation Driver Detection by Multi-Electrode Mapping. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2020, 13, e008249.	2.1	21
64	Nodal β spectrins are required to maintain Na ⁺ channel clustering and axon integrity. <i>ELife</i> , 2020, 9, .	2.8	20
65	Mechanisms and Alterations of Cardiac Ion Channels Leading to Disease: Role of Ankyrin-B in Cardiac Function. <i>Biomolecules</i> , 2020, 10, 211.	1.8	19
66	β IV-Spectrin/STAT3 complex regulates fibroblast phenotype, fibrosis, and cardiac function. <i>JCI Insight</i> , 2019, 4, .	2.3	19
67	Unmasking Arrhythmogenic Hubs of Reentry Driving Persistent Atrial Fibrillation for Patient-Specific Treatment. <i>Journal of the American Heart Association</i> , 2020, 9, e017789.	1.6	18
68	microRNA overexpression in slow transit constipation leads to reduced Na ^v 1.5 current and altered smooth muscle contractility. <i>Gut</i> , 2020, 69, 868-876.	6.1	18
69	Claudin-5 levels are reduced from multiple cell types in human failing hearts and are associated with mislocalization of ephrin-B1. <i>Cardiovascular Pathology</i> , 2015, 24, 160-167.	0.7	17
70	Arrhythmogenic Substrates for Atrial Fibrillation in Obesity. <i>Frontiers in Physiology</i> , 2018, 9, 1482.	1.3	17
71	β spectrin-dependent and domain specific mechanisms for Na ⁺ channel clustering. <i>ELife</i> , 2020, 9, .	2.8	17
72	Use of Whole Exome Sequencing for the Identification of <i>ICL</i> β -Based Arrhythmia Mechanism and Therapy. <i>Journal of the American Heart Association</i> , 2015, 4, .	1.6	16

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73	Quantifying Drug-Induced Nanomechanics and Mechanical Effects to Single Cardiomyocytes for Optimal Drug Administration To Minimize Cardiotoxicity. <i>Langmuir</i> , 2016, 32, 1909-1919.	1.6	16
74	Effects of zacopride, a moderate IK1 channel agonist, on triggered arrhythmia and contractility in human ventricular myocardium. <i>Pharmacological Research</i> , 2017, 115, 309-318.	3.1	16
75	Ankyrin-B Q1283H Variant Linked to Arrhythmias Via Loss of Local Protein Phosphatase 2A Activity Causes Ryanodine Receptor Hyperphosphorylation. <i>Circulation</i> , 2018, 138, 2682-2697.	1.6	16
76	Microfibrillar-Associated Protein 4 Regulates Stress-Induced Cardiac Remodeling. <i>Circulation Research</i> , 2021, 128, 723-737.	2.0	16
77	Eps15 Homology Domain-containing Protein 3 Regulates Cardiac T-type Ca ²⁺ Channel Targeting and Function in the Atria. <i>Journal of Biological Chemistry</i> , 2015, 290, 12210-12221.	1.6	14
78	Chronic heart failure increases negative chronotropic effects of adenosine in canine sinoatrial cells via A1R stimulation and GIRK-mediated IKado. <i>Life Sciences</i> , 2020, 240, 117068.	2.0	14
79	Impact of etiology on force and kinetics of left ventricular end-stage failing human myocardium. <i>Journal of Molecular and Cellular Cardiology</i> , 2021, 156, 7-19.	0.9	14
80	Identification of General and Heart-Specific miRNAs in Sheep (<i>Ovis aries</i>). <i>PLoS ONE</i> , 2015, 10, e0143313.	1.1	13
81	Novel Mechanistic Roles for Ankyrin-G in Cardiac Remodeling and Heart Failure. <i>JACC Basic To Translational Science</i> , 2018, 3, 675-689.	1.9	13
82	Abnormal myocardial expression of SAP97 is associated with arrhythmogenic risk. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 318, H1357-H1370.	1.5	13
83	Inherited Variants in <i>SCARB1</i> Cause Severe Early-Onset Coronary Artery Disease. <i>Circulation Research</i> , 2021, 129, 296-307.	2.0	12
84	Altered microRNA and mRNA profiles during heart failure in the human sinoatrial node. <i>Scientific Reports</i> , 2021, 11, 19328.	1.6	12
85	First In Vivo Use of High-Resolution Near-Infrared Optical Mapping to Assess Atrial Activation During Sinus Rhythm and Atrial Fibrillation in a Large Animal Model. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2018, 11, e006870.	2.1	11
86	Loss of CASK Accelerates Heart Failure Development. <i>Circulation Research</i> , 2021, 128, 1139-1155.	2.0	11
87	Î²IV-spectrin as a stalk cell-intrinsic regulator of VEGF signaling. <i>Nature Communications</i> , 2022, 13, 1326.	5.8	11
88	Defective interactions of protein partner with ion channels and transporters as alternative mechanisms of membrane channelopathies. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014, 1838, 723-730.	1.4	10
89	Insights into length-dependent regulation of cardiac cross-bridge cycling kinetics in human myocardium. <i>Archives of Biochemistry and Biophysics</i> , 2016, 601, 48-55.	1.4	10
90	Altered regulation of cardiac ankyrin repeat protein in heart failure. <i>Heliyon</i> , 2018, 4, e00514.	1.4	10

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91	Rhythm dynamics of the aging heart: an experimental study using conscious, restrained mice. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 319, H893-H905.	1.5	10
92	Joiner et al. reply. <i>Nature</i> , 2014, 513, E3-E3.	13.7	9
93	Endosome-based protein trafficking and Ca ²⁺ homeostasis in the heart. <i>Frontiers in Physiology</i> , 2015, 6, 34.	1.3	9
94	Common human ANK2 variant confers in vivo arrhythmia phenotypes. <i>Heart Rhythm</i> , 2016, 13, 1932-1940.	0.3	9
95	Assessment of PKA and PKC inhibitors on force and kinetics of non-failing and failing human myocardium. <i>Life Sciences</i> , 2018, 215, 119-127.	2.0	9
96	Genetic and non-genetic risk factors associated with atrial fibrillation. <i>Life Sciences</i> , 2022, 299, 120529.	2.0	9
97	Microtubular remodeling and decreased expression of Nav1.5 with enhanced EHD4 in cells from the infarcted heart. <i>Life Sciences</i> , 2018, 201, 72-80.	2.0	8
98	New mechanistic insights to PLOD1-mediated human vascular disease. <i>Translational Research</i> , 2022, 239, 1-17.	2.2	8
99	Defining the Links Between Oxidative Stress-Based Biomarkers and Postoperative Atrial Fibrillation. <i>Journal of the American Heart Association</i> , 2015, 4, .	1.6	7
100	Ca ²⁺ /calmodulin kinase II-dependent regulation of β IV-spectrin modulates cardiac fibroblast gene expression, proliferation, and contractility. <i>Journal of Biological Chemistry</i> , 2021, 297, 100893.	1.6	7
101	A Module of Human Peripheral Blood Mononuclear Cell Transcriptional Network Containing Primitive and Differentiation Markers Is Related to Specific Cardiovascular Health Variables. <i>PLoS ONE</i> , 2014, 9, e95124.	1.1	5
102	The Effect of Sorafenib, Tadalafil and Macitentan Treatments on Thyroxin-Induced Hemodynamic Changes and Cardiac Abnormalities. <i>PLoS ONE</i> , 2016, 11, e0153694.	1.1	5
103	Giant ankyrin-G regulates cardiac function. <i>Journal of Biological Chemistry</i> , 2021, 296, 100507.	1.6	4
104	Viral transport media for COVID-19 testing. <i>MethodsX</i> , 2021, 8, 101433.	0.7	4
105	SAP97 and Cortactin Remodeling in Arrhythmogenic Purkinje Cells. <i>PLoS ONE</i> , 2014, 9, e106830.	1.1	4
106	Complexity of cardiac ion channel macromolecular complexes. <i>Cardiovascular Research</i> , 2016, 110, 163-164.	1.8	3
107	Increased cross-bridge recruitment contributes to transient increase in force generation beyond maximal capacity in human myocardium. <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 114, 116-123.	0.9	3
108	Altered Expression of Zonula occludens-1 Affects Cardiac Na ⁺ Channels and Increases Susceptibility to Ventricular Arrhythmias. <i>Cells</i> , 2022, 11, 665.	1.8	3

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109	Treat the Patient, Not Just the Cell!. <i>Circulation Research</i> , 2017, 120, 1390-1392.	2.0	2
110	Advancements in the use of gene therapy for cardiac arrhythmia. <i>Heart Rhythm</i> , 2017, 14, 1061-1062.	0.3	2
111	Novel Pathways for Regulation of Sinoatrial Node Plasticity and Heart Rate. <i>Circulation Research</i> , 2017, 121, 1027-1028.	2.0	2
112	The Davis Heart and Lung Research Institute. <i>Circulation Research</i> , 2017, 120, 1068-1071.	2.0	1
113	Potential use of ivabradine for treatment of atrial fibrillation. <i>Journal of Cardiovascular Electrophysiology</i> , 2019, 30, 253-254.	0.8	1
114	Stretching single titin molecules from failing human hearts reveals titin's role in blunting cardiac kinetic reserve. <i>Cardiovascular Research</i> , 2020, 116, 127-137.	1.8	1
115	Strategies for Risk Analysis and Disease Classification in Atrial Fibrillation. <i>Journal of Cardiovascular Electrophysiology</i> , 2016, 27, 1271-1273.	0.8	0
116	Response by El Refaey et al to Letter Regarding Article, "Protein Phosphatase 2A Regulates Cardiac Na ⁺ Channels". <i>Circulation Research</i> , 2019, 124, e60-e61.	2.0	0
117	Abstract 18171: HCN Channel Distribution in the Human Sinoatrial Node and Latent Atrial Pacemakers (Best of Basic Science Abstract). <i>Circulation</i> , 2015, 132, .	1.6	0
118	Antiarrhythmic Activity of NMDA Receptor Antagonists in Humans Versus Animal Models. <i>FASEB Journal</i> , 2018, 32, 901.16.	0.2	0
119	Force-frequency Relationship and Early Relaxation Kinetics Are Preserved Upon SR Blockade in Human Myocardium. <i>FASEB Journal</i> , 2018, 32, 903.15.	0.2	0
120	Stretching Single Titin Molecules from Failing Human Hearts at Cardiac Cycle Reveals Titin's Role in Cardiac Kinetic Reserve. <i>FASEB Journal</i> , 2018, 32, 903.6.	0.2	0
121	Abstract 15963: Microrna Biophysically Modulates Cardiac Physiology via Directly Binding to Ion Channel. <i>Circulation</i> , 2020, 142, .	1.6	0