

# Nipavan Chiamvimonvat

## List of Publications by Citations

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109  
papers

4,790  
citations

41  
h-index

67  
g-index

181  
ext. papers

5,526  
ext. citations

5.8  
avg, IF

6.65  
L-index

#	Paper	IF	Citations
109	Ionic mechanism of action potential prolongation in ventricular myocytes from dogs with pacing-induced heart failure. <i>Circulation Research</i> , <b>1996</b> , 78, 262-73	15.7	375
108	Molecular identification and functional roles of a Ca <sup>2+</sup> -activated K <sup>+</sup> channel in human and mouse hearts. <i>Journal of Biological Chemistry</i> , <b>2003</b> , 278, 49085-94	5.4	206
107	Prevention and reversal of cardiac hypertrophy by soluble epoxide hydrolase inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2006</b> , 103, 18733-8	11.5	192
106	Functional Roles of Ca <sub>v</sub> 1.3 (alpha1D) calcium channel in sinoatrial nodes: insight gained using gene-targeted null mutant mice. <i>Circulation Research</i> , <b>2002</b> , 90, 981-7	15.7	186
105	Differential expression of small-conductance Ca <sup>2+</sup> -activated K <sup>+</sup> channels SK1, SK2, and SK3 in mouse atrial and ventricular myocytes. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2005</b> , 289, H2714-23	5.2	178
104	Ablation of a Ca <sup>2+</sup> -activated K <sup>+</sup> channel (SK2 channel) results in action potential prolongation in atrial myocytes and atrial fibrillation. <i>Journal of Physiology</i> , <b>2009</b> , 587, 1087-100	3.9	152
103	Mechanism-based facilitated maturation of human pluripotent stem cell-derived cardiomyocytes. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2013</b> , 6, 191-201	6.4	140
102	The soluble epoxide hydrolase as a pharmaceutical target for hypertension. <i>Journal of Cardiovascular Pharmacology</i> , <b>2007</b> , 50, 225-37	3.1	139
101	Soluble epoxide hydrolase plays an essential role in angiotensin II-induced cardiac hypertrophy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 564-9	11.5	138
100	Molecular coupling of a Ca <sup>2+</sup> -activated K <sup>+</sup> channel to L-type Ca <sup>2+</sup> channels via alpha-actinin2. <i>Circulation Research</i> , <b>2007</b> , 100, 112-20	15.7	120
99	Functional roles of Cav1.3(alpha1D) calcium channels in atria: insights gained from gene-targeted null mutant mice. <i>Circulation</i> , <b>2005</b> , 112, 1936-44	16.7	108
98	Inhibition of soluble epoxide hydrolase enhances the anti-inflammatory effects of aspirin and 5-lipoxygenase activation protein inhibitor in a murine model. <i>Biochemical Pharmacology</i> , <b>2010</b> , 79, 880-7	6	104
97	Mechanochemotransduction during cardiomyocyte contraction is mediated by localized nitric oxide signaling. <i>Science Signaling</i> , <b>2014</b> , 7, ra27	8.8	99
96	Metabolic profiling of murine plasma reveals an unexpected biomarker in rofecoxib-mediated cardiovascular events. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2010</b> , 107, 17017-22	11.5	99
95	Functional roles of a Ca <sup>2+</sup> -activated K <sup>+</sup> channel in atrioventricular nodes. <i>Circulation Research</i> , <b>2008</b> , 102, 465-71	15.7	80
94	Changes in Ca <sup>2+</sup> cycling proteins underlie cardiac action potential prolongation in a pressure-overloaded guinea pig model with cardiac hypertrophy and failure. <i>Circulation Research</i> , <b>2000</b> , 86, 558-70	15.7	79
93	Unique mechanistic insights into the beneficial effects of soluble epoxide hydrolase inhibitors in the prevention of cardiac fibrosis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 5618-23	11.5	78

92	Anti-inflammatory effects of $\Omega$ 3 polyunsaturated fatty acids and soluble epoxide hydrolase inhibitors in angiotensin-II-dependent hypertension. <i>Journal of Cardiovascular Pharmacology</i> , <b>2013</b> , 62, 285-97	3.1	78
91	Cardiac small conductance $Ca^{2+}$ -activated $K^{+}$ channel subunits form heteromultimers via the coiled-coil domains in the C termini of the channels. <i>Circulation Research</i> , <b>2010</b> , 107, 851-9	15.7	77
90	Beneficial effects of soluble epoxide hydrolase inhibitors in myocardial infarction model: Insight gained using metabolomic approaches. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2009</b> , 47, 835-45	5.8	71
89	$Na^{+}/Ca^{2+}$ exchanger is a determinant of excitation-contraction coupling in human embryonic stem cell-derived ventricular cardiomyocytes. <i>Stem Cells and Development</i> , <b>2010</b> , 19, 773-82	4.4	69
88	Adenylyl cyclase subtype-specific compartmentalization: differential regulation of L-type $Ca^{2+}$ current in ventricular myocytes. <i>Circulation Research</i> , <b>2013</b> , 112, 1567-76	15.7	62
87	Critical roles of a small conductance $Ca^{2+}$ -activated $K^{+}$ channel (SK3) in the repolarization process of atrial myocytes. <i>Cardiovascular Research</i> , <b>2014</b> , 101, 317-25	9.9	60
86	Inhibition of soluble epoxide hydrolase attenuates hepatic fibrosis and endoplasmic reticulum stress induced by carbon tetrachloride in mice. <i>Toxicology and Applied Pharmacology</i> , <b>2015</b> , 286, 102-11	4.6	59
85	Substituted phenyl groups improve the pharmacokinetic profile and anti-inflammatory effect of urea-based soluble epoxide hydrolase inhibitors in murine models. <i>European Journal of Pharmaceutical Sciences</i> , <b>2013</b> , 48, 619-27	5.1	55
84	Small-conductance $Ca^{2+}$ -activated $K^{+}$ channels and cardiac arrhythmias. <i>Heart Rhythm</i> , <b>2015</b> , 12, 1845-56.7	56.7	54
83	A potent soluble epoxide hydrolase inhibitor, t-AUCB, acts through PPAR $\alpha$ to modulate the function of endothelial progenitor cells from patients with acute myocardial infarction. <i>International Journal of Cardiology</i> , <b>2013</b> , 167, 1298-304	3.2	54
82	Alpha-actinin2 cytoskeletal protein is required for the functional membrane localization of a $Ca^{2+}$ -activated $K^{+}$ channel (SK2 channel). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2009</b> , 106, 18402-7	11.5	53
81	Complex electrophysiological remodeling in postinfarction ischemic heart failure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E3036-E3044	11.5	51
80	Potassium currents in the heart: functional roles in repolarization, arrhythmia and therapeutics. <i>Journal of Physiology</i> , <b>2017</b> , 595, 2229-2252	3.9	51
79	Potassium channels in the heart: structure, function and regulation. <i>Journal of Physiology</i> , <b>2017</b> , 595, 2209-2228	3.9	49
78	Soluble epoxide hydrolase inhibitors and heart failure. <i>Cardiovascular Therapeutics</i> , <b>2011</b> , 29, 99-111	3.3	49
77	Low-level vagus nerve stimulation upregulates small conductance calcium-activated potassium channels in the stellate ganglion. <i>Heart Rhythm</i> , <b>2013</b> , 10, 910-5	6.7	46
76	$Na^{+}$ channel function, regulation, structure, trafficking and sequestration. <i>Journal of Physiology</i> , <b>2015</b> , 593, 1347-60	3.9	42
75	Presence of a calcium-activated chloride current in mouse ventricular myocytes. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2002</b> , 283, H302-14	5.2	42

74	Use of metabolomic profiling in the study of arachidonic acid metabolism in cardiovascular disease. <i>Congestive Heart Failure</i> , <b>2011</b> , 17, 42-6		38
73	Expression and roles of Cav1.3 (β1D) L-type Ca <sup>2+</sup> channel in atrioventricular node automaticity. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2011</b> , 50, 194-202	5.8	36
72	Functional interaction with filamin A and intracellular Ca <sup>2+</sup> enhance the surface membrane expression of a small-conductance Ca <sup>2+</sup> -activated K <sup>+</sup> (SK2) channel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 9989-94	11.5	35
71	MicroRNA profiling predicts a variance in the proliferative potential of cardiac progenitor cells derived from neonatal and adult murine hearts. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2012</b> , 52, 264-72	5.8	34
70	Characterization of a KCNQ1/KVLQT1 polymorphism in Asian families with LQT2: implications for genetic testing. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2004</b> , 37, 79-89	5.8	32
69	The effects of intracellular Ca <sup>2+</sup> on cardiac K <sup>+</sup> channel expression and activity: novel insights from genetically altered mice. <i>Journal of Physiology</i> , <b>2005</b> , 562, 745-58	3.9	32
68	Regulation of gene transcription by voltage-gated L-type calcium channel, Cav1.3. <i>Journal of Biological Chemistry</i> , <b>2015</b> , 290, 4663-4676	5.4	31
67	Molecular Mechanisms and New Treatment Paradigm for Atrial Fibrillation. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2016</b> , 9,	6.4	31
66	Lack of association of antihypertensive drugs with the risk and severity of COVID-19: A meta-analysis. <i>Journal of Cardiology</i> , <b>2021</b> , 77, 482-491	3	30
65	Inhibition of soluble epoxide hydrolase in mice promotes reverse cholesterol transport and regression of atherosclerosis. <i>Atherosclerosis</i> , <b>2015</b> , 239, 557-65	3.1	29
64	Cardioprotection by controlling hyperamylinemia in a "humanized" diabetic rat model. <i>Journal of the American Heart Association</i> , <b>2014</b> , 3,	6	29
63	CAABL-AF (California Study of Ablation for Atrial Fibrillation): Mortality and Stroke, 2005 to 2013. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2018</b> , 11, e005739	6.4	23
62	Mechano-electric and mechano-chemo-transduction in cardiomyocytes. <i>Journal of Physiology</i> , <b>2020</b> , 598, 1285-1305	3.9	21
61	Adenylyl cyclase 5-generated cAMP controls cerebral vascular reactivity during diabetic hyperglycemia. <i>Journal of Clinical Investigation</i> , <b>2019</b> , 129, 3140-3152	15.9	20
60	Label-free identification and characterization of human pluripotent stem cell-derived cardiomyocytes using second harmonic generation (SHG) microscopy. <i>Journal of Biophotonics</i> , <b>2012</b> , 5, 57-66	3.1	19
59	The cargo of CRPPR-conjugated liposomes crosses the intact murine cardiac endothelium. <i>Journal of Controlled Release</i> , <b>2012</b> , 163, 10-7	11.7	19
58	Pharmacological inhibition of soluble epoxide hydrolase provides cardioprotection in hyperglycemic rats. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2012</b> , 303, H853-62	5.2	19
57	Coupling of SK channels, L-type Ca channels, and ryanodine receptors in cardiomyocytes. <i>Scientific Reports</i> , <b>2018</b> , 8, 4670	4.9	18

56	Same-Single-Cell Analysis of Pacemaker-Specific Markers in Human Induced Pluripotent Stem Cell-Derived Cardiomyocyte Subtypes Classified by Electrophysiology. <i>Stem Cells</i> , <b>2016</b> , 34, 2670-2680	5.8	17
55	Biochemical and biomechanical properties of the pacemaking sinoatrial node extracellular matrix are distinct from contractile left ventricular matrix. <i>PLoS ONE</i> , <b>2017</b> , 12, e0185125	3.7	17
54	Dynamical effects of calcium-sensitive potassium currents on voltage and calcium alternans. <i>Journal of Physiology</i> , <b>2017</b> , 595, 2285-2297	3.9	16
53	Genetic, cellular, and functional evidence for Ca <sup>2+</sup> inflow through Cav1.2 and Cav1.3 channels in murine spiral ganglion neurons. <i>Journal of Neuroscience</i> , <b>2014</b> , 34, 7383-93	6.6	16
52	Etiology of distinct membrane excitability in pre- and posthearing auditory neurons relies on activity of Cl <sup>-</sup> channel TMEM16A. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 2575-80	11.5	15
51	Feedback mechanisms for cardiac-specific microRNAs and cAMP signaling in electrical remodeling. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2015</b> , 8, 942-50	6.4	14
50	Multimodal SHG-2PF Imaging of Microdomain Ca <sup>2+</sup> -Contraction Coupling in Live Cardiac Myocytes. <i>Circulation Research</i> , <b>2016</b> , 118, e19-28	15.7	14
49	Training the translational research teams of the future: UC Davis-HHMI Integrating Medicine into Basic Science program. <i>Clinical and Translational Science</i> , <b>2013</b> , 6, 339-46	4.9	14
48	The developing gut-lung axis: postnatal growth restriction, intestinal dysbiosis, and pulmonary hypertension in a rodent model. <i>Pediatric Research</i> , <b>2020</b> , 87, 472-479	3.2	13
47	Action Potential Shortening and Impairment of Cardiac Function by Ablation of. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2017</b> , 10,	6.4	11
46	Mechanisms of Calmodulin Regulation of Different Isoforms of Kv7.4 K <sup>+</sup> Channels. <i>Journal of Biological Chemistry</i> , <b>2016</b> , 291, 2499-509	5.4	11
45	Cooperativity of K7.4 channels confers ultrafast electromechanical sensitivity and emergent properties in cochlear outer hair cells. <i>Science Advances</i> , <b>2020</b> , 6, eaba1104	14.3	11
44	Distinct subcellular mechanisms for the enhancement of the surface membrane expression of SK2 channel by its interacting proteins, $\beta$ actinin2 and filamin A. <i>Journal of Physiology</i> , <b>2017</b> , 595, 2271-2284	3.9	10
43	Human induced pluripotent stem cell line with genetically encoded fluorescent voltage indicator generated via CRISPR for action potential assessment post-cardiogenesis. <i>Stem Cells</i> , <b>2020</b> , 38, 90-101	5.8	10
42	In Vivo Cannulation Methods for Cardiomyocytes Isolation from Heart Disease Models. <i>PLoS ONE</i> , <b>2016</b> , 11, e0160605	3.7	10
41	Disruption of adenylyl cyclase type V does not rescue the phenotype of cardiac-specific overexpression of Galphaq protein-induced cardiomyopathy. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , <b>2010</b> , 299, H1459-67	5.2	9
40	NODAL inhibition promotes differentiation of pacemaker-like cardiomyocytes from human induced pluripotent stem cells. <i>Stem Cell Research</i> , <b>2020</b> , 49, 102043	1.6	9
39	Identification of a key residue in Kv7.1 potassium channel essential for sensing external potassium ions. <i>Journal of General Physiology</i> , <b>2015</b> , 145, 201-12	3.4	8

38	Suppression of inflammation and fibrosis using soluble epoxide hydrolase inhibitors enhances cardiac stem cell-based therapy. <i>Stem Cells Translational Medicine</i> , <b>2020</b> , 9, 1570-1584	6.9	8
37	Intestinal Dysbiosis and the Developing Lung: The Role of Toll-Like Receptor 4 in the Gut-Lung Axis. <i>Frontiers in Immunology</i> , <b>2020</b> , 11, 357	8.4	7
36	Aspirin and clopidogrel high on-treatment platelet reactivity and genetic predictors in peripheral arterial disease. <i>Catheterization and Cardiovascular Interventions</i> , <b>2018</b> , 91, 1308-1317	2.7	7
35	Assessment of Chloroquine and Hydroxychloroquine Safety Profiles: A Systematic Review and Meta-Analysis. <i>Frontiers in Pharmacology</i> , <b>2020</b> , 11, 562777	5.6	7
34	Key Characteristics of Cardiovascular Toxicants. <i>Environmental Health Perspectives</i> , <b>2021</b> , 129, 95001	8.4	7
33	Novel large-particle FACS purification of adult ventricular myocytes reveals accumulation of myosin and actin disproportionate to cell size and proteome in normal post-weaning development. <i>Journal of Molecular and Cellular Cardiology</i> , <b>2017</b> , 111, 114-122	5.8	6
32	AKAP5 complex facilitates purinergic modulation of vascular L-type Ca channel Ca <sub>v</sub> 1.2. <i>Nature Communications</i> , <b>2020</b> , 11, 5303	17.4	6
31	Ketone Ester D-β-Hydroxybutyrate-(R)-1,3 Butanediol Prevents Decline in Cardiac Function in Type 2 Diabetic Mice. <i>Journal of the American Heart Association</i> , <b>2021</b> , 10, e020729	6	6
30	High-fat diet induces protein kinase A and G-protein receptor kinase phosphorylation of β <sub>1</sub> -adrenergic receptor and impairs cardiac adrenergic reserve in animal hearts. <i>Journal of Physiology</i> , <b>2017</b> , 595, 1973-1986	3.9	5
29	Electrotaxis of cardiac progenitor cells, cardiac fibroblasts, and induced pluripotent stem cell-derived cardiac progenitor cells requires serum and is directed via PI3K pathways. <i>Heart Rhythm</i> , <b>2017</b> , 14, 1685-1692	6.7	5
28	The local translation of in dendritic projections of auditory neurons and the roles of in the transition from hidden to overt hearing loss. <i>Aging</i> , <b>2019</b> , 11, 11541-11564	5.6	5
27	Assessment of Hydroxychloroquine and Chloroquine Safety Profiles: A Systematic Review and Meta-Analysis <b>2020</b> ,		5
26	Mechanical Load Regulates Excitation-Ca Signaling-Contraction in Cardiomyocyte. <i>Circulation Research</i> , <b>2021</b> , 128, 772-774	15.7	5
25	Prestin amplifies cardiac motor functions. <i>Cell Reports</i> , <b>2021</b> , 35, 109097	10.6	5
24	Small-Conductance Ca <sup>2+</sup> -Activated K <sup>+</sup> Current in Atrial Fibrillation: Both Friend and FOE. <i>Biophysical Journal</i> , <b>2016</b> , 110, 274a	2.9	5
23	Different arrhythmia-associated calmodulin mutations have distinct effects on cardiac SK channel regulation. <i>Journal of General Physiology</i> , <b>2020</b> , 152,	3.4	4
22	Selectin-Targeting Glycosaminoglycan-Peptide Conjugate Limits Neutrophil Mediated Cardiac Reperfusion Injury. <i>Cardiovascular Research</i> , <b>2020</b> ,	9.9	4
21	Gating Properties of Mutant Sodium Channels and Responses to Sodium Current Inhibitors Predict Mexiletine-Sensitive Mutations of Long QT Syndrome 3. <i>Frontiers in Pharmacology</i> , <b>2020</b> , 11, 1182	5.6	4

20	Cardiac small-conductance calcium-activated potassium channels in health and disease. <i>Pflugers Archiv European Journal of Physiology</i> , <b>2021</b> , 473, 477-489	4.6	3
19	Aerobic exercise-based rehabilitation affects the activities of progenitor endothelial cells through EETs pathway. <i>Medical Hypotheses</i> , <b>2015</b> , 85, 1037-8	3.8	2
18	Bariatric surgery to alleviate Occurrence of Atrial Fibrillation Hospitalization-BLOC-AF. <i>Heart Rhythm O2</i> , <b>2020</b> , 1, 96-102	1.5	2
17	Electrocardiogram with a twist. <i>Critical Pathways in Cardiology</i> , <b>2012</b> , 11, 218-9	1.3	2
16	Early functional alterations in membrane properties and neuronal degeneration are hallmarks of progressive hearing loss in NOD mice. <i>Scientific Reports</i> , <b>2019</b> , 9, 12128	4.9	1
15	Retrograde cycle length alternans during supraventricular tachycardia: an unusual tachycardia mechanism. <i>PACE - Pacing and Clinical Electrophysiology</i> , <b>2004</b> , 27, 1017-9	1.6	1
14	Deciphering cellular signals in adult mouse sinoatrial node cells.. <i>IScience</i> , <b>2022</b> , 25, 103693	6.1	1
13	Beat-to-beat dynamic regulation of intracellular pH in cardiomyocytes.. <i>IScience</i> , <b>2022</b> , 25, 103624	6.1	1
12	Development of congestive heart failure in mice with a null deletion of MAFbx. <i>FASEB Journal</i> , <b>2010</b> , 24, 1036.17	0.9	1
11	Chronic Diclofenac Exposure Increases Mitochondrial Oxidative Stress, Inflammatory Mediators, and Cardiac Dysfunction. <i>Cardiovascular Drugs and Therapy</i> , <b>2021</b> , 1	3.9	1
10	The Critical Roles of Proteostasis and Endoplasmic Reticulum Stress in Atrial Fibrillation.. <i>Frontiers in Physiology</i> , <b>2021</b> , 12, 793171	4.6	0
9	Making Heads or Tails of the Large Mammalian Sinoatrial Node Micro-Organization. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2021</b> , CIRCEP121010465	6.4	0
8	Sex and Race Disparities in Presumed Sudden Cardiac Death: One Size Does Not Fit All. <i>Circulation: Arrhythmia and Electrophysiology</i> , <b>2021</b> , 14, e010053	6.4	0
7	Feedback Mechanisms for Cardiac-Specific MicroRNAs and cAMP Signaling in Electrical Remodeling <b>2018</b> , 219-225		
6	Changing in atrioventricular conduction in mice over-expressing Ca <sup>2+</sup> -activated K <sup>+</sup> channels. <i>Cell Biology International</i> , <b>2008</b> , 32, S20-S20	4.5	
5	Stretch and Inflammation- Their Relation to Fractionation of Electrograms in Atrial Fibrillation. <i>Journal of Atrial Fibrillation</i> , <b>2011</b> , 4, 406	0.8	
4	Protocol to assess two distinct components of the nonlinear capacitance in mouse cardiomyocytes. <i>STAR Protocols</i> , <b>2021</b> , 2, 100891	1.4	
3	Local regulation of L-type CaV1.2 channel and vascular reactivity by adenylyl cyclase 5 during diabetic hyperglycemia. <i>FASEB Journal</i> , <b>2018</b> , 32, 567.1	0.9	

- 2 Model Systems for Addressing Mechanism of Arrhythmogenesis in Cardiac Repair. *Current Cardiology Reports*, **2021**, 23, 72 4.2
- 1 Protocol to record and quantify the intracellular pH in contracting cardiomyocytes.. *STAR Protocols*, **2022**, 3, 101301 1.4