

Ye Chen-Izu

List of Publications by Year in descending order

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Version: 2024-02-01

111
papers

2,681
citations

185998

28
h-index

189595

50
g-index

112
all docs

112
docs citations

112
times ranked

3423
citing authors

#	ARTICLE	IF	CITATIONS
1	Beat-to-beat dynamic regulation of intracellular pH in cardiomyocytes. <i>IScience</i> , 2022, 25, 103624.	1.9	4
2	Exploring the Coordination of Cardiac Ion Channels With Action Potential Clamp Technique. <i>Frontiers in Physiology</i> , 2022, 13, 864002.	1.3	2
3	Modeling cardiomyocyte mechanics and autoregulation of contractility by mechano-chemo-transduction feedback. <i>IScience</i> , 2022, 25, 104667.	1.9	0
4	Mechanical Load Regulates Excitation-Ca ²⁺ Signaling-Contraction in Cardiomyocyte. <i>Circulation Research</i> , 2021, 128, 772-774.	2.0	9
5	Emergence of Mechano-Sensitive Contraction Autoregulation in Cardiomyocytes. <i>Life</i> , 2021, 11, 503.	1.1	2
6	Mechanoelectric coupling and arrhythmogenesis in cardiomyocytes contracting under mechanical afterload in a 3D viscoelastic hydrogel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, e2108484118.	3.3	14
7	A viscoelastic Eshelby inclusion model and analysis of the Cell-in-Gel system. <i>International Journal of Engineering Science</i> , 2021, 165, 103489.	2.7	6
8	Mechano-electric and mechano-chemo-transduction in cardiomyocytes. <i>Journal of Physiology</i> , 2020, 598, 1285-1305.	1.3	30
9	Mechanical Load on Cardiomyocyte Activates Mechano-Chemo-Transduction to Autoregulate Ca ²⁺ Signaling and Contractility. <i>Biophysical Journal</i> , 2020, 118, 409a.	0.2	0
10	Diminished β^2 -Adrenergic Response in Protein Kinase D Knock-Out Cardiomyocytes. <i>Biophysical Journal</i> , 2020, 118, 101a.	0.2	0
11	Balance Between Rapid Delayed Rectifier K ⁺ Current and Late Na ⁺ Current on Ventricular Repolarization. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2020, 13, e008130.	2.1	16
12	Contractility Autoregulation in Cardiomyocytes Emerges from Mechanosensor Geometry and Mechano-Chemo-Transduction. <i>Biophysical Journal</i> , 2020, 118, 251a.	0.2	0
13	Mechanics and energetics in cardiac arrhythmias and heart failure. <i>Journal of Physiology</i> , 2020, 598, 1275-1277.	1.3	1
14	Functional Connectome of the Mechanically Loaded Cardiomyocyte I: Identifying Involved Subsystems. <i>Biophysical Journal</i> , 2019, 116, 237a.	0.2	0
15	Functional Connectome of the Mechanically Loaded Cardiomyocyte II: Coordinated Changes of Subsystems. <i>Biophysical Journal</i> , 2019, 116, 97a.	0.2	0
16	Mechanical Load Effects on Cardiac Action Potential and Arrhythmogenic Ca ²⁺ Activities revealed by a Novel Patch-Clamp-In-Gel Technology. <i>Biophysical Journal</i> , 2019, 116, 97a.	0.2	0
17	Altered K ⁺ current profiles underlie cardiac action potential shortening in hyperkalemia and β^2 -adrenergic stimulation. <i>Canadian Journal of Physiology and Pharmacology</i> , 2019, 97, 773-780.	0.7	6
18	Enhanced Depolarization Drive in Failing Rabbit Ventricular Myocytes. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2019, 12, e007061.	2.1	29

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19	Cardiotoxicity Prediction Based on Integrated hERG Database with Molecular Convolution Model. , 2019, , .		1
20	Identification of Cardiomyocytes' Inner Workings Responsible for Dynamical Changes in Calcium Profile in Response to Mechanical Load. Biophysical Journal, 2018, 114, 466a-467a.	0.2	0
21	Altered Repolarization Reserve in Failing Rabbit Ventricular Myocytes. Circulation: Arrhythmia and Electrophysiology, 2018, 11, e005852.	2.1	30
22	Mechanotransduction via No Signaling Auto-Regulates Cardiomyocyte Contractility. Biophysical Journal, 2018, 114, 620a.	0.2	0
23	Coupling of SK channels, L-type Ca ²⁺ channels, and ryanodine receptors in cardiomyocytes. Scientific Reports, 2018, 8, 4670.	1.6	30
24	Complex electrophysiological remodeling in postinfarction ischemic heart failure. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3036-E3044.	3.3	72
25	Mechanical Load Effects on Cardiomyocyte Action Potential, Calcium Transient, and Contraction Revealed by using a Novel Patch-Clamp-in-Gel Technology. Biophysical Journal, 2018, 114, 620a.	0.2	1
26	A Mathematical Model of a Pig Ventricular Myocyte. Biophysical Journal, 2018, 114, 471a.	0.2	0
27	Surface Mechanosensors and the Fundamental Conundrum of Homeometric Regulation. Biophysical Journal, 2018, 114, 41a.	0.2	0
28	β ₂ -adrenergic regulation of late Na ⁺ current during cardiac action potential is mediated by both PKA and CaMKII. Journal of Molecular and Cellular Cardiology, 2018, 123, 168-179.	0.9	55
29	Illuminating cell signaling with genetically encoded FRET biosensors in adult mouse cardiomyocytes. Journal of General Physiology, 2018, 150, 1567-1582.	0.9	15
30	Viscoelastic Eshelby Analysis of Cardiomyocyte Contraction in the Cell-in-Gel System. , 2018, , .		0
31	Mechano-chemo-transduction in cardiac myocytes. Journal of Physiology, 2017, 595, 3949-3958.	1.3	22
32	Ionic Current Changes during Action Potentials in Porcine Post-MI Heart Failure Model. Biophysical Journal, 2017, 112, 402a.	0.2	0
33	K ⁺ channels and cardiac electrophysiology. Journal of Physiology, 2017, 595, 2205-2207.	1.3	1
34	Action Potential Shortening and Impairment of Cardiac Function by Ablation of <i>Slc26a6</i> . Circulation: Arrhythmia and Electrophysiology, 2017, 10, .	2.1	17
35	Mechano-chemo-transduction is attenuated in a rabbit model of heart failure. Journal of Molecular and Cellular Cardiology, 2017, 112, 147.	0.9	0
36	Identification of cardiomyocytes' characteristics responsible for dynamical changes in calcium profile in response to mechano-chemo transduction. Journal of Molecular and Cellular Cardiology, 2017, 112, 168.	0.9	0

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37	Ca ²⁺ -activated Cl ⁻ current is antiarrhythmic by reducing both spatial and temporal heterogeneity of cardiac repolarization. <i>Journal of Molecular and Cellular Cardiology</i> , 2017, 109, 27-37.	0.9	18
38	Potassium channels in the heart: structure, function and regulation. <i>Journal of Physiology</i> , 2017, 595, 2209-2228.	1.3	79
39	Potassium currents in the heart: functional roles in repolarization, arrhythmia and therapeutics. <i>Journal of Physiology</i> , 2017, 595, 2229-2252.	1.3	76
40	Avoiding phantasms. <i>Cardiovascular Research</i> , 2017, 113, 1703-1704.	1.8	0
41	Recording of Ionic Currents Under Physiological Conditions: Action Potential-Clamp and "Onion-Peeling"™ Techniques. , 2017, , 31-48.		6
42	In Vivo Cannulation Methods for Cardiomyocytes Isolation from Heart Disease Models. <i>PLoS ONE</i> , 2016, 11, e0160605.	1.1	10
43	Multimodal second harmonic generation and two photon fluorescence imaging of microdomain calcium contraction coupling in single cardiomyocytes. , 2016, , .		0
44	Mechanical Analysis of Single Myocyte Contraction in a 3D Viscoelastic Gel. <i>Biophysical Journal</i> , 2016, 110, 101a.	0.2	0
45	Determination of the Upper Bound of Intracellular [Na ⁺] by Electrophysiological Method: Probing the Subsarcolemmal [Na ⁺]. <i>Biophysical Journal</i> , 2016, 110, 587a.	0.2	0
46	Mechano-Chemo-transduction in Cardiomyocytes during Beat-To Beat Contraction under Mechanical Load. <i>Biophysical Journal</i> , 2016, 110, 185a.	0.2	0
47	CaMKII and Heart Failure Promote a Pathological Ryanodine Receptor Conformation that Reduces Calmodulin Binding and Enhances SR Ca ²⁺ Leak. <i>Biophysical Journal</i> , 2016, 110, 599a.	0.2	1
48	Electrophysiological Determination of Submembrane Na ⁺ Concentration in Cardiac Myocytes. <i>Biophysical Journal</i> , 2016, 111, 1304-1315.	0.2	12
49	CaMKII-dependent phosphorylation of RyR2 promotes targetable pathological RyR2 conformational shift. <i>Journal of Molecular and Cellular Cardiology</i> , 2016, 98, 62-72.	0.9	80
50	SHG-2PF Imaging of Local Ca ²⁺ and Sub-Sarcomere Contraction in Live Cardiomyocytes. <i>Biophysical Journal</i> , 2016, 110, 432a.	0.2	1
51	Spatial and Functional Interactions between SK Channels and L-Type Calcium Channels in Cardiomyocytes. <i>Biophysical Journal</i> , 2016, 110, 122a.	0.2	0
52	CaMKII Inhibitor KN-93 Directly Blocks IKr in Cardiac Myocytes. <i>Biophysical Journal</i> , 2016, 110, 273a.	0.2	0
53	Mechano-Chemo-Transduction in Rabbit Cardiomyocytes Mediated by no Signaling. <i>Biophysical Journal</i> , 2016, 110, 600a.	0.2	0
54	CA ²⁺ Tides in Cardiomyocytes Under Mechanical Loading. <i>Biophysical Journal</i> , 2016, 110, 100a.	0.2	0

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55	Multimodal SHG-2PF Imaging of Microdomain Ca ²⁺ -Contraction Coupling in Live Cardiac Myocytes. <i>Circulation Research</i> , 2016, 118, e19-28.	2.0	19
56	Optimizing Population Variability to Maximize Benefit. <i>PLoS ONE</i> , 2015, 10, e0143475.	1.1	0
57	KN-93 inhibits IKr in mammalian cardiomyocytes. <i>Journal of Molecular and Cellular Cardiology</i> , 2015, 89, 173-176.	0.9	28
58	Measuring the metrics: Correlating t-tubule structure and muscle contraction in the intact heart. <i>Journal of Molecular and Cellular Cardiology</i> , 2015, 85, 153-154.	0.9	0
59	Oxidation of ryanodine receptor (RyR) and calmodulin enhance Ca release and pathologically alter, RyR structure and calmodulin affinity. <i>Journal of Molecular and Cellular Cardiology</i> , 2015, 85, 240-248.	0.9	91
60	Na ⁺ /Ca ²⁺ exchange and Na ⁺ /K ⁺ ATPase in the heart. <i>Journal of Physiology</i> , 2015, 593, 1361-1382.	1.3	160
61	Na ⁺ channel function, regulation, structure, trafficking and sequestration. <i>Journal of Physiology</i> , 2015, 593, 1347-1360.	1.3	59
62	A computational modelling approach combined with cellular electrophysiology data provides insights into the therapeutic benefit of targeting the late Na ⁺ current. <i>Journal of Physiology</i> , 2015, 593, 1429-1442.	1.3	22
63	KCNJ15/Kir4.2 couples with polyamines to sense weak extracellular electric fields in galvanotaxis. <i>Nature Communications</i> , 2015, 6, 8532.	5.8	83
64	Sodium and calcium regulation in cardiac myocytes: from molecules to heart failure and arrhythmia. <i>Journal of Physiology</i> , 2015, 593, 1327-1329.	1.3	10
65	Deranged sodium to sudden death. <i>Journal of Physiology</i> , 2015, 593, 1331-1345.	1.3	46
66	CaMKII-Dependent Phosphorylation of RyR2 Causes Domain Unzipping and Reduced Calmodulin Binding, But Dantrolene Reverses These Effects. <i>Biophysical Journal</i> , 2015, 108, 269a-270a.	0.2	0
67	Digoxin and Adenosine Triphosphate Enhance the Functional Properties of Tissue-Engineered Cartilage. <i>Tissue Engineering - Part A</i> , 2015, 21, 884-894.	1.6	8
68	Mechanochemotransduction During Cardiomyocyte Contraction Is Mediated by Localized Nitric Oxide Signaling. <i>Science Signaling</i> , 2014, 7, ra27.	1.6	128
69	In Failing Cardiomyocytes, CaM-RyR2 Dissociation Leads to Defective Domain Interaction and Channel Destabilization. <i>Biophysical Journal</i> , 2014, 106, 527a.	0.2	0
70	Beta-adrenergic stimulation reverses the I _{Kr} dominant pattern during cardiac action potential. <i>Pflügers Archiv European Journal of Physiology</i> , 2014, 466, 2067-2076.	1.3	44
71	FRET-Based Trilateration of Probes Bound within Functional Ryanodine Receptors. <i>Biophysical Journal</i> , 2014, 107, 2037-2048.	0.2	16
72	Dynamic Late Na Current During Cardiac Action Potential Revealed by a Specific and Potent Inhibitor Gs967. <i>Biophysical Journal</i> , 2014, 106, 328a.	0.2	0

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73	Mechano-Chemotransduction in the Single Cardiac Myocyte Contracting in 3D Elastic Gel. Biophysical Journal, 2014, 106, 117a-118a.	0.2	0
74	Localized Nitric Oxide Signaling Mediates Cardiac Mechano-Chemotransduction. Biophysical Journal, 2014, 106, 566a.	0.2	0
75	Mechanical Analysis of Single Myocyte Contraction in a 3D Elastic Matrix. Biophysical Journal, 2014, 106, 565a.	0.2	0
76	Transmural Gradient of Ito and INak Profoundly Influence Ventricular Action Potential Duration. Biophysical Journal, 2014, 106, 117a.	0.2	1
77	An Emerging Antiarrhythmic Target: Late Sodium Current. Current Pharmaceutical Design, 2014, 21, 1073-1090.	0.9	7
78	Cell Edge Detector: Recovering Length Information from Line-Scan Confocal Images. Biophysical Journal, 2013, 104, 293a.	0.2	0
79	Ca ²⁺ waves in the heart. Journal of Molecular and Cellular Cardiology, 2013, 58, 118-124.	0.9	29
80	Dynamics of the late Na ⁺ current during cardiac action potential and its contribution to afterdepolarizations. Journal of Molecular and Cellular Cardiology, 2013, 64, 59-68.	0.9	86
81	The force-frequency relationship: insights from mathematical modeling. American Journal of Physiology - Advances in Physiology Education, 2013, 37, 28-34.	0.8	17
82	Mechanical Analysis of Single Myocyte Contraction in a 3-D Elastic Matrix. PLoS ONE, 2013, 8, e75492.	1.1	22
83	Profile of L-type Ca ²⁺ current and Na ⁺ /Ca ²⁺ exchange current during cardiac action potential in ventricular myocytes. Heart Rhythm, 2012, 9, 134-142.	0.3	39
84	Feed Forward Modeling. Fixing the Force Frequency Relationship. Biophysical Journal, 2012, 102, 552a-553a.	0.2	0
85	Profile of the Late Sodium Current during Cardiac Action Potential in Guinea Pig Ventricular Cardiomyocytes. Biophysical Journal, 2012, 102, 541a.	0.2	0
86	Une cellule type?. Journal of Molecular and Cellular Cardiology, 2012, 52, 921-922.	0.9	1
87	Individual Cell Electrophysiology (ICE) of Cardiac Myocytes _ Using Innovative "Onion-Peeling"™ Technique to Study the ICE of Excitable Cells. Biophysical Journal, 2012, 102, 544a.	0.2	0
88	From Action Potential-Clamp to "Onion-Peeling" Technique " Recording of Ionic Currents Under Physiological Conditions. , 2012, , .		5
89	Increased Myofilament Ca ²⁺ Sensitivity Decreases Sarcomere Length and Increases Spark-Spark Interactions. Biophysical Journal, 2011, 100, 560a.	0.2	0
90	Sequential dissection of multiple ionic currents in single cardiac myocytes under action potential-clamp. Journal of Molecular and Cellular Cardiology, 2011, 50, 578-581.	0.9	57

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91	Cardiac Calmodulin Kinase: A Potential Target for Drug Design. <i>Current Medicinal Chemistry</i> , 2011, 18, 3707-3713.	1.2	10
92	Modeling the Dynamic Currents Recorded under Action Potential-Clamp in Cardiac Myocytes. <i>Biophysical Journal</i> , 2010, 98, 528a.	0.2	0
93	Cellular Cartography. <i>Biophysical Journal</i> , 2010, 99, 3861-3862.	0.2	0
94	Multiple levels of the single L-type Ca ²⁺ channel conductance in adult mammalian ventricular myocytes. <i>Biochemical and Biophysical Research Communications</i> , 2010, 391, 604-608.	1.0	3
95	CaMKII Regulation of the Dynamic L-Type Ca ²⁺ Current and Na ⁺ /Ca ²⁺ Exchange Current During Action Potential in Cardiac Myocytes. <i>Biophysical Journal</i> , 2010, 98, 335a.	0.2	0
96	CaMKII Regulates L-type Ca ²⁺ Current during Action Potential Plateau and Repolarization _ a Direct Link to Arrhythmias. <i>Biophysical Journal</i> , 2009, 96, 12a.	0.2	0
97	Sarcomere Shortening Destabilizes the Ca ²⁺ Control System in Ventricular Myocytes: Implications for Understanding Arrhythmias in Familial Hypertrophic Cardiomyopathy. <i>Biophysical Journal</i> , 2009, 96, 513a.	0.2	1
98	Transformation of adult rat cardiac myocytes in primary culture. <i>Experimental Physiology</i> , 2008, 93, 370-382.	0.9	82
99	Left ventricular dysfunction and associated cellular injury in rats exposed to chronic intermittent hypoxia. <i>Journal of Applied Physiology</i> , 2008, 104, 218-223.	1.2	82
100	Phosphorylation of RyR2 and shortening of RyR2 cluster spacing in spontaneously hypertensive rat with heart failure. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H2409-H2417.	1.5	45
101	Hypertension-induced remodeling of cardiac excitation-contraction coupling in ventricular myocytes occurs prior to hypertrophy development. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2007, 293, H3301-H3310.	1.5	42
102	A New Approach to the Detection and Statistical Classification of Ca ²⁺ Sparks. <i>Biophysical Journal</i> , 2007, 92, 4458-4465.	0.2	47
103	Eavesdropping on the Social Lives of Ca ²⁺ Sparks. <i>Biophysical Journal</i> , 2007, 93, 3408-3420.	0.2	9
104	Three-Dimensional Distribution of Ryanodine Receptor Clusters in Cardiac Myocytes. <i>Biophysical Journal</i> , 2006, 91, 1-13.	0.2	188
105	Interplay of Ryanodine Receptor Distribution and Calcium Dynamics. <i>Biophysical Journal</i> , 2006, 91, 95-112.	0.2	88
106	Progress in the development of a unifying hypothesis on the mechanisms underlying the electrical and mechanical abnormalities of the failing heart: One step backward but two steps forward. <i>Journal of Molecular and Cellular Cardiology</i> , 2006, 41, 424-425.	0.9	1
107	Role of the Transverse Axial Tubule System in Generating Calcium Sparks and Calcium Transients in Rat Atrial Myocytes. <i>Journal of Physiology</i> , 2003, 547, 441-451.	1.3	113
108	ICa(TTX) Channels Are Distinct from Those Generating the Classical Cardiac Na ⁺ Current. <i>Biophysical Journal</i> , 2001, 81, 2647-2659.	0.2	8

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109	Opposing gates model for voltage gating of gap junction channels. American Journal of Physiology - Cell Physiology, 2001, 281, C1604-C1613.	2.1	38
110	Gi-Dependent Localization of β_2 -Adrenergic Receptor Signaling to L-Type Ca^{2+} Channels. Biophysical Journal, 2000, 79, 2547-2556.	0.2	150
111	Gi Protein-mediated Functional Compartmentalization of Cardiac β_2 -Adrenergic Signaling. Journal of Biological Chemistry, 1999, 274, 22048-22052.	1.6	150