

Glen F Tibbits

List of Publications by Year in descending order

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101
papers

2,115
citations

186254

28
h-index

289230

40
g-index

107
all docs

107
docs citations

107
times ranked

2049
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling Atrial Fibrillation using Human Embryonic Stem Cell-Derived Atrial Tissue. Scientific Reports, 2017, 7, 5268.	3.3	77
2	Calcium transport and the regulation of cardiac contractility in teleosts: a comparison with higher vertebrates. Canadian Journal of Zoology, 1991, 69, 2014-2019.	1.0	73
3	Colocalization of dihydropyridine and ryanodine receptors in neonate rabbit heart using confocal microscopy. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 279, H202-H209.	3.2	64
4	Store-operated Ca ²⁺ entry modulates sarcoplasmic reticulum Ca ²⁺ loading in neonatal rabbit cardiac ventricular myocytes. American Journal of Physiology - Cell Physiology, 2006, 290, C1572-C1582.	4.6	55
5	The Zebrafish Heart as a Model of Mammalian Cardiac Function. Reviews of Physiology, Biochemistry and Pharmacology, 2016, 171, 99-136.	1.6	55
6	Familial hypertrophic cardiomyopathy-related cardiac troponin C mutation L29Q affects Ca ²⁺ binding and myofilament contractility. Physiological Genomics, 2008, 33, 257-266.	2.3	53
7	Ca ²⁺ binding to cardiac troponin C: effects of temperature and pH on mammalian and salmonid isoforms. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2000, 279, R1707-R1715.	1.8	52
8	Functional and evolutionary relationships of troponin C. Physiological Genomics, 2007, 32, 16-27.	2.3	51
9	Real-time monitoring of intracellular calcium dynamic mobilization of a single cardiomyocyte in a microfluidic chip pertaining to drug discovery. Electrophoresis, 2007, 28, 4723-4733.	2.4	49
10	Calcium handling in zebrafish ventricular myocytes. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2011, 300, R56-R66.	1.8	48
11	Beating the cold: the functional evolution of troponin C in teleost fish. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2002, 132, 763-772.	1.8	46
12	Three-Dimensional Distribution of Cardiac Na ⁺ -Ca ²⁺ Exchanger and Ryanodine Receptor during Development. Biophysical Journal, 2007, 93, 2504-2518.	0.5	46
13	Gene Structure Evolution of the Na ⁺ -Ca ²⁺ Exchanger (NCX) Family. BMC Evolutionary Biology, 2008, 8, 127.	3.2	44
14	Na ⁺ /Ca ²⁺ exchange activity in neonatal rabbit ventricular myocytes. American Journal of Physiology - Cell Physiology, 2005, 288, C195-C203.	4.6	43
15	Optical mapping of the electrical activity of isolated adult zebrafish hearts: acute effects of temperature. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2014, 306, R823-R836.	1.8	43
16	Ibrutinib Displays Atrial-Specific Toxicity in Human Stem Cell-Derived Cardiomyocytes. Stem Cell Reports, 2019, 12, 996-1006.	4.8	43
17	Hyperpolarization-activated cyclic nucleotide-modulated hCN TM channels confer regular and faster rhythmicity to beating mouse embryonic stem cells. Journal of Physiology, 2008, 586, 701-716.	2.9	42
18	Temperature dependence of cloned mammalian and salmonid cardiac Na ⁺ /Ca ²⁺ exchanger isoforms. American Journal of Physiology - Cell Physiology, 2001, 281, C993-C1000.	4.6	40

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19	Excitation-contraction coupling in the teleost heart. <i>Fish Physiology</i> , 1992, , 267-304.	0.8	39
20	Cloning, expression, and characterization of the trout cardiac Na ⁺ /Ca ²⁺ exchanger. <i>American Journal of Physiology - Cell Physiology</i> , 1999, 277, C693-C700.	4.6	39
21	Effects of active oxygen generated by DTTFe ²⁺ on cardiac Na ⁺ /Ca ²⁺ exchange and membrane permeability to Ca ²⁺ . <i>Journal of Molecular and Cellular Cardiology</i> , 1989, 21, 1009-1016.	1.9	38
22	Ontogeny of Ca ²⁺ -induced Ca ²⁺ release in rabbit ventricular myocytes. <i>American Journal of Physiology - Cell Physiology</i> , 2008, 294, C516-C525.	4.6	36
23	Aortic and Cardiac Structure and Function Using High-Resolution Echocardiography and Optical Coherence Tomography in a Mouse Model of Marfan Syndrome. <i>PLoS ONE</i> , 2016, 11, e0164778.	2.5	36
24	Deconvolution of confocal images of dihydropyridine and ryanodine receptors in developing cardiomyocytes. <i>Journal of Applied Physiology</i> , 2004, 97, 1098-1103.	2.5	34
25	Variation in RARG increases susceptibility to doxorubicin-induced cardiotoxicity in patient specific induced pluripotent stem cell-derived cardiomyocytes. <i>Scientific Reports</i> , 2020, 10, 10363.	3.3	34
26	Functional Assessment of Cardiac Responses of Adult Zebrafish (<i>Danio rerio</i>) to Acute and Chronic Temperature Change Using High-Resolution Echocardiography. <i>PLoS ONE</i> , 2016, 11, e0145163.	2.5	33
27	Increasing mammalian cardiomyocyte contractility with residues identified in trout troponin C. <i>Physiological Genomics</i> , 2005, 22, 1-7.	2.3	32
28	A KCNQ1 V205M missense mutation causes a high rate of long QT syndrome in a First Nations community of northern British Columbia: a community-based approach to understanding the impact. <i>Genetics in Medicine</i> , 2008, 10, 545-550.	2.4	31
29	Sequence mutations in teleost cardiac troponin C that are permissive of high Ca ²⁺ affinity of site II. <i>American Journal of Physiology - Cell Physiology</i> , 2003, 284, C1176-C1184.	4.6	30
30	Changes in the dynamics of the cardiac troponin C molecule explain the effects of Ca ²⁺ -sensitizing mutations. <i>Journal of Biological Chemistry</i> , 2017, 292, 11915-11926.	3.4	30
31	Phylogeny of Na ⁺ /Ca ²⁺ exchanger (NCX) genes from genomic data identifies new gene duplications and a new family member in fish species. <i>Physiological Genomics</i> , 2005, 21, 161-173.	2.3	29
32	Ontogeny of excitation-contraction coupling in the mammalian heart. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2002, 132, 691-698.	1.8	28
33	Active oxygen in neuromuscular disorders. <i>Molecular and Cellular Biochemistry</i> , 1988, 84, 199-216.	3.1	27
34	Triggering of sarcoplasmic reticulum Ca ²⁺ release and contraction by reverse mode Na ⁺ /Ca ²⁺ exchange in trout atrial myocytes. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2003, 284, R1330-R1339.	1.8	27
35	L-type Ca ²⁺ channel function and expression in neonatal rabbit ventricular myocytes. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2006, 290, H2267-H2276.	3.2	27
36	Adult teleost heart expresses two distinct troponin C paralogs: cardiac TnC and a novel and teleost-specific ssTnC in a chamber- and temperature-dependent manner. <i>Physiological Genomics</i> , 2013, 45, 866-875.	2.3	27

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37	Investigating the Genetic Causes of Sudden Unexpected Death in Children Through Targeted Next-Generation Sequencing Analysis. <i>Circulation: Cardiovascular Genetics</i> , 2017, 10, .	5.1	27
38	Mechanistic basis for LQT1 caused by S3 mutations in the KCNQ1 subunit of <i>I_{Ks}</i> . <i>Journal of General Physiology</i> , 2010, 135, 433-448.	1.9	26
39	Familial Hypertrophic Cardiomyopathy Related Cardiac Troponin C L29Q Mutation Alters Length-Dependent Activation and Functional Effects of Phosphomimetic Troponin I*. <i>PLoS ONE</i> , 2013, 8, e79363.	2.5	26
40	Construction and use of a zebrafish heart voltage and calcium optical mapping system, with integrated electrocardiogram and programmable electrical stimulation. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2015, 308, R755-R768.	1.8	25
41	Drug screening platform using human induced pluripotent stem cell-derived atrial cardiomyocytes and optical mapping. <i>Stem Cells Translational Medicine</i> , 2021, 10, 68-82.	3.3	23
42	Colocalization of voltage-gated Na ⁺ channels with the Na ⁺ /Ca ²⁺ exchanger in rabbit cardiomyocytes during development. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2011, 300, H300-H311.	3.2	20
43	The mitochondrial metallochaperone SCO1 maintains CTR1 at the plasma membrane to preserve copper homeostasis in the murine heart. <i>Human Molecular Genetics</i> , 2017, 26, 4617-4628.	2.9	20
44	Na ⁺ -dependent alkaline earth metal uptake in cardiac sarcolemmal vesicles. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1985, 817, 327-332.	2.6	19
45	Cloning and Sequencing of Complementary DNA for Fatty Acid Binding Protein from Rainbow Trout Heart. <i>Comparative Biochemistry and Physiology - B Biochemistry and Molecular Biology</i> , 1998, 119, 213-217.	1.6	19
46	Effect of Temperature and the F27W Mutation on the Ca ²⁺ -Activated Structural Transition of Trout Cardiac Troponin C. <i>Biochemistry</i> , 2003, 42, 6418-6426.	2.5	19
47	Zebrafish as a model of mammalian cardiac function: Optically mapping the interplay of temperature and rate on voltage and calcium dynamics. <i>Progress in Biophysics and Molecular Biology</i> , 2018, 138, 69-90.	2.9	18
48	The hERG channel activator, RPR260243, enhances protective <i>I_{Kr}</i> current early in the refractory period reducing arrhythmogenicity in zebrafish hearts. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2020, 319, H251-H261.	3.2	18
49	Effect of Temperature on the Structure of Trout Troponin C. <i>Biochemistry</i> , 2004, 43, 4955-4963.	2.5	17
50	SR Ca ²⁺ refilling upon depletion and SR Ca ²⁺ uptake rates during development in rabbit ventricular myocytes. <i>American Journal of Physiology - Cell Physiology</i> , 2007, 293, C1906-C1915.	4.6	17
51	Characterization of Zebrafish Cardiac and Slow Skeletal Troponin C Paralogs by MD Simulation andÂITC. <i>Biophysical Journal</i> , 2016, 111, 38-49.	0.5	16
52	In vitro analyses of suspected arrhythmogenic thin filament variants as a cause of sudden cardiac death in infants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6969-6974.	7.1	16
53	In vivo characterization of doxycycline-mediated protection of aortic function and structure in a mouse model of Marfan syndrome-associated aortic aneurysm. <i>Scientific Reports</i> , 2019, 9, 2071.	3.3	16
54	ROCK2 promotes ryanodine receptor phosphorylation and arrhythmic calcium release in diabetic cardiomyocytes. <i>International Journal of Cardiology</i> , 2019, 281, 90-98.	1.7	16

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55	Distribution patterns of the Na ⁺ /Ca ²⁺ exchanger and caveolin-3 in developing rabbit cardiomyocytes. <i>Cell Calcium</i> , 2009, 45, 369-383.	2.4	15
56	Morphological phenotyping of mouse hearts using optical coherence tomography. <i>Journal of Biomedical Optics</i> , 2014, 19, 1.	2.6	13
57	Functional Divergence in Teleost Cardiac Troponin Paralogs Guides Variation in the Interaction of Tnl Switch Region with TnC. <i>Genome Biology and Evolution</i> , 2016, 8, 994-1011.	2.5	13
58	Binding of calcium and magnesium to human cardiac troponin C. <i>Journal of Biological Chemistry</i> , 2021, 296, 100350.	3.4	13
59	Mechanisms of Arrhythmogenicity of Hypertrophic Cardiomyopathy-Associated Troponin T (TNNT2) Variant I79N. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 787581.	3.7	13
60	Determinants of cardiac Na ⁺ /Ca ²⁺ exchanger temperature dependence: NH ₂ -terminal transmembrane segments. <i>American Journal of Physiology - Cell Physiology</i> , 2002, 283, C512-C520.	4.6	12
61	Effect of β ₂ -adrenergic stimulation on the relationship between membrane potential, intracellular [Ca ²⁺] and sarcoplasmic reticulum Ca ²⁺ uptake in rainbow trout atrial myocytes. <i>Journal of Experimental Biology</i> , 2004, 207, 1369-1377.	1.7	11
62	cDNA Cloning and Expression of the Cardiac Na ⁺ /Ca ²⁺ Exchanger from Mozambique Tilapia (<i>Oreochromis mossambicus</i>) Reveal a Teleost Membrane Transporter with Mammalian Temperature Dependence. <i>Journal of Biological Chemistry</i> , 2005, 280, 28903-28911.	3.4	11
63	Isolation and Characterization of Atrioventricular Nodal Cells From Neonate Rabbit Heart. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2011, 4, 936-946.	4.8	11
64	RARG S427L attenuates the DNA repair response to doxorubicin in induced pluripotent stem cell-derived cardiomyocytes. <i>Stem Cell Reports</i> , 2022, 17, 756-765.	4.8	11
65	Myocardial sarcolemma isolated from skipjack tuna, <i>Katsuwonus pelamis</i> . <i>Canadian Journal of Zoology</i> , 1992, 70, 1240-1245.	1.0	10
66	Physiological phenotyping of the adult zebrafish heart. <i>Marine Genomics</i> , 2020, 49, 100701.	1.1	10
67	Characterization of zebrafish (<i>Danio rerio</i>) NCX4: a novel NCX with distinct electrophysiological properties. <i>American Journal of Physiology - Cell Physiology</i> , 2009, 296, C173-C181.	4.6	9
68	The structure of cardiac troponin C regulatory domain with bound Cd ²⁺ reveals a closed conformation and unique ion coordination. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2013, 69, 722-734.	2.5	9
69	Atrial-specific hiPSC-derived cardiomyocytes in drug discovery and disease modeling. <i>Methods</i> , 2022, 203, 364-377.	3.8	9
70	Investigating the utility of adult zebrafish ex vivo whole hearts to pharmacologically screen hERG channel activator compounds. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2019, 317, R921-R931.	1.8	8
71	Electrophysiological characterization of the hERG R56Q LQTS variant and targeted rescue by the activator RPR260243. <i>Journal of General Physiology</i> , 2021, 153, .	1.9	8
72	Towards a molecular explanation of the high performance of the tuna heart. <i>Comparative Biochemistry and Physiology A, Comparative Physiology</i> , 1996, 113, 77-82.	0.6	7

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73	Pediatric Catecholaminergic Polymorphic Ventricular Tachycardia: A Translational Perspective for the Clinician-Scientist. <i>International Journal of Molecular Sciences</i> , 2021, 22, 9293.	4.1	7
74	Investigating inherited arrhythmias using hiPSC-derived cardiomyocytes. <i>Methods</i> , 2022, 203, 542-557.	3.8	6
75	Ischemiaâ€“reperfusion destabilizes rhythmicity in immature atrioventricular pacemakers: A predisposing factor for postoperative arrhythmias in neonate rabbits. <i>Heart Rhythm</i> , 2016, 13, 2348-2355.	0.7	5
76	Crystal Structure of Cardiac Troponin C Regulatory Domain in Complex with Cadmium and Deoxycholic Acid Reveals Novel Conformation. <i>Journal of Molecular Biology</i> , 2011, 413, 699-711.	4.2	4
77	Automatic Cycle Averaging for Denoising Approximately Periodic Spatiotemporal Signals. <i>IEEE Transactions on Medical Imaging</i> , 2014, 33, 1749-1759.	8.9	4
78	Utility of Zebrafish Models of Acquired and Inherited Long QT Syndrome. <i>Frontiers in Physiology</i> , 2020, 11, 624129.	2.8	4
79	The effect of Mg ²⁺ on Ca ²⁺ binding to cardiac troponin C in hypertrophic cardiomyopathy associated <i>TNNC1</i> variants. <i>FEBS Journal</i> , 2022, 289, 7446-7465.	4.7	4
80	Effects of diabetes and hypertension on myocardial Na ⁺ -Ca ²⁺ exchange. <i>Canadian Journal of Physiology and Pharmacology</i> , 1999, 78, 12-19.	1.4	3
81	Using hiPSCâ€“CMs to Examine Mechanisms of Catecholaminergic Polymorphic Ventricular Tachycardia. <i>Current Protocols</i> , 2021, 1, e320.	2.9	3
82	Temperature Dependence of Cardiac Na ⁺ /Ca ²⁺ Exchanger. <i>Annals of the New York Academy of Sciences</i> , 2002, 976, 109-112.	3.8	2
83	On identification of sinoatrial node in zebrafish heart based on functional time series from optical mapping. , 2013, 2013, 6518-21.		2
84	Binding of calcium and magnesium to cardiac Troponin C assessed through Isothermal Titration Calorimetry (ITC). <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 124, 86.	1.9	2
85	pH recovery from a proton load in rat cardiomyocytes: effects of chronic exercise. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2018, 314, H285-H292.	3.2	2
86	Functional characterization of a novel hERG variant in a family with recurrent sudden infant death syndrome: Retracting a genetic diagnosis. <i>Forensic Science International</i> , 2018, 284, 39-45.	2.2	1
87	Phenotype-dependent role of the L-type calcium current in embryonic stem cell derived cardiomyocytes. <i>American Journal of Stem Cells</i> , 2014, 3, 37-45.	0.4	1
88	Familial Hypertrophic Cardiomyopathy (FHC)-Related Cardiac Troponin C (cTnC) L29Q Mutation Alters the Contractility and the Functional Effects of the Phosphomimetic cTnI. <i>Biophysical Journal</i> , 2012, 102, 358a.	0.5	0
89	Molecular Dynamics-Based Predictions of the Structural and Functional Effects of Disease-Causing Cardiac Troponin Mutations. <i>Biophysical Journal</i> , 2014, 106, 678a.	0.5	0
90	Molecular Dynamics-Based Predictions of the Structural and Functional Differences Between the Cardiac and Novel Slow-Skeletal Isoforms of Zebrafish Troponin C. <i>Biophysical Journal</i> , 2014, 106, 611a.	0.5	0

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91	A Novel Tryptophan Analog Designed for Studying Calcium Induced Conformational Change of Troponin C. Biophysical Journal, 2016, 110, 124a.	0.5	0
92	Thermodynamics of Calcium Binding to Zebrafish Troponin C (TnC) Visualized through Isothermal Titration Calorimetry (ITC) and Molecular Dynamics (MD). Biophysical Journal, 2016, 110, 124a.	0.5	0
93	Potential of Mean Force Calculations and Isothermal Titration Calorimetry Measurements of the Human Cardiac Troponin C / Calcium Interaction Reveal Affinity Changes as a Function of Familial Hypertrophic Cardiomyopathy Associated Mutations. Biophysical Journal, 2016, 110, 325a.	0.5	0
94	Comparison of hERG and zERG Potassium Channel Function and Pharmacology. Biophysical Journal, 2018, 114, 294a.	0.5	0
95	The Arrhythmogenic Impact of the Familial Hypertrophic Cardiomyopathy-related Cardiac Troponin T mutation I79N. Journal of Molecular and Cellular Cardiology, 2018, 124, 86.	1.9	0
96	Investigating Cardiac Subtype-Specific Pharmacology Using Atrial-like Cardiomyocytes Derived from Human Induced Pluripotent Stem Cells (hiPSCs) and Optical Mapping. Journal of Molecular and Cellular Cardiology, 2018, 124, 110-111.	1.9	0
97	Selective inhibition and activation of retinoid pathways to create chamber specific cardiac subtypes from human induced pluripotent stem cells (hiPSCs). Journal of Molecular and Cellular Cardiology, 2018, 124, 111.	1.9	0
98	Acidosis Prolongs APD in Optically Mapped Adult Zebrafish Whole Hearts as a Result of hERG Channel Block. Biophysical Journal, 2018, 114, 490a.	0.5	0
99	Molecular mechanisms regulating cardiac contractility: subfunctionalization of fish-specific paralogs of troponin C in Danio rerio. FASEB Journal, 2012, 26, 886.5.	0.5	0
100	Temperature regulation of fish-specific paralogs of cardiac TnC. FASEB Journal, 2013, 27, 714.11.	0.5	0
101	Abstract 14680: Evaluation of the Protective Effects of Long-term Doxycycline Treatment on Progression of Marfan-associated Aortic Aneurysm by High-resolution Ultrasound Imaging. Circulation, 2015, 132, .	1.6	0