

Jeffrey J Saucerman

List of Publications by Year in descending order

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Version: 2024-02-01

71
papers

3,630
citations

147801

31
h-index

144013

57
g-index

80
all docs

80
docs citations

80
times ranked

5192
citing authors

#	ARTICLE	IF	CITATIONS
1	Computational model of brain endothelial cell signaling pathways predicts therapeutic targets for cerebral pathologies. <i>Journal of Molecular and Cellular Cardiology</i> , 2022, 164, 17-28.	1.9	8
2	Brahma safeguards canalization of cardiac mesoderm differentiation. <i>Nature</i> , 2022, 602, 129-134.	27.8	22
3	Inhibition of DYRK1a Enhances Cardiomyocyte Cycling After Myocardial Infarction. <i>Circulation Research</i> , 2022, 130, 1345-1361.	4.5	12
4	Multiscale model of heart growth during pregnancy: integrating mechanical and hormonal signaling. <i>Biomechanics and Modeling in Mechanobiology</i> , 2022, 21, 1267-1283.	2.8	5
5	A multiscale model of cardiac concentric hypertrophy incorporating both mechanical and hormonal drivers of growth. <i>Biomechanics and Modeling in Mechanobiology</i> , 2021, 20, 293-307.	2.8	19
6	Network Analysis Reveals a Distinct Axis of Macrophage Activation in Response to Conflicting Inflammatory Cues. <i>Journal of Immunology</i> , 2021, 206, 883-891.	0.8	26
7	Network model-based screen for FDA-approved drugs affecting cardiac fibrosis. <i>CPT: Pharmacometrics and Systems Pharmacology</i> , 2021, 10, 377-388.	2.5	16
8	Mechano-chemo signaling interactions modulate matrix production by cardiac fibroblasts. <i>Matrix Biology Plus</i> , 2021, 10, 100055.	3.5	9
9	Computational model of cardiomyocyte apoptosis identifies mechanisms of tyrosine kinase inhibitor-induced cardiotoxicity. <i>Journal of Molecular and Cellular Cardiology</i> , 2021, 155, 66-77.	1.9	18
10	The Cell Surface Receptors Ror1/2 Control Cardiac Myofibroblast Differentiation. <i>Journal of the American Heart Association</i> , 2021, 10, e019904.	3.7	4
11	A kinetic model of beta-adrenergic control in cardiac myocytes. <i>Physiome</i> , 2021, , .	0.3	0
12	A kinetic model of beta-adrenergic control in cardiac myocytes. <i>Physiome</i> , 2021, , .	0.3	0
13	Computational model predicts paracrine and intracellular drivers of fibroblast phenotype after myocardial infarction. <i>Matrix Biology</i> , 2020, 91-92, 136-151.	3.6	31
14	Quantification of model and data uncertainty in a network analysis of cardiac myocyte mechanosignalling. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2020, 378, 20190336.	3.4	12
15	Context-specific network modeling identifies new crosstalk in β^2 -adrenergic cardiac hypertrophy. <i>PLoS Computational Biology</i> , 2020, 16, e1008490.	3.2	12
16	Mechanical regulation of gene expression in cardiac myocytes and fibroblasts. <i>Nature Reviews Cardiology</i> , 2019, 16, 361-378.	13.7	134
17	Multiscale Coupling of an Agent-Based Model of Tissue Fibrosis and a Logic-Based Model of Intracellular Signaling. <i>Frontiers in Physiology</i> , 2019, 10, 1481.	2.8	29
18	High-content phenotypic assay for proliferation of human iPSC-derived cardiomyocytes identifies L-type calcium channels as targets. <i>Journal of Molecular and Cellular Cardiology</i> , 2019, 127, 204-214.	1.9	20

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19	Atg2, Atg9 and Atg18 in mitochondrial integrity, cardiac function and healthspan in Drosophila. <i>Journal of Molecular and Cellular Cardiology</i> , 2019, 127, 116-124.	1.9	25
20	A personalized, multiomics approach identifies genes involved in cardiac hypertrophy and heart failure. <i>Npj Systems Biology and Applications</i> , 2018, 4, 12.	3.0	22
21	High content analysis identifies unique morphological features of reprogrammed cardiomyocytes. <i>Scientific Reports</i> , 2018, 8, 1258.	3.3	23
22	Network-based predictions of in vivo cardiac hypertrophy. <i>Journal of Molecular and Cellular Cardiology</i> , 2018, 121, 180-189.	1.9	20
23	Mapping macrophage polarization over the myocardial infarction time continuum. <i>Basic Research in Cardiology</i> , 2018, 113, 26.	5.9	189
24	An engineering design approach to systems biology. <i>Integrative Biology (United Kingdom)</i> , 2017, 9, 574-583.	1.3	22
25	Ampk phosphorylation of Ulk1 is required for targeting of mitochondria to lysosomes in exercise-induced mitophagy. <i>Nature Communications</i> , 2017, 8, 548.	12.8	333
26	Mechanistic Systems Modeling to Improve Understanding and Prediction of Cardiotoxicity Caused by Targeted Cancer Therapeutics. <i>Frontiers in Physiology</i> , 2017, 8, 651.	2.8	26
27	Predictive model identifies key network regulators of cardiomyocyte mechano-signaling. <i>PLoS Computational Biology</i> , 2017, 13, e1005854.	3.2	53
28	Knowledge gaps to understanding cardiac macrophage polarization following myocardial infarction. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2016, 1862, 2288-2292.	3.8	39
29	Computational modeling of cardiac fibroblasts and fibrosis. <i>Journal of Molecular and Cellular Cardiology</i> , 2016, 93, 73-83.	1.9	63
30	A computational model of cardiac fibroblast signaling predicts context-dependent drivers of myofibroblast differentiation. <i>Journal of Molecular and Cellular Cardiology</i> , 2016, 94, 72-81.	1.9	79
31	Scaffold State Switching Amplifies, Accelerates, and Insulates Protein Kinase C Signaling. <i>Journal of Biological Chemistry</i> , 2014, 289, 2353-2360.	3.4	24
32	Modeling the Effects of β_1 -Adrenergic Receptor Blockers and Polymorphisms on Cardiac Myocyte Ca^{2+} Handling. <i>Molecular Pharmacology</i> , 2014, 86, 222-230.	2.3	16
33	PKA catalytic subunit compartmentation regulates contractile and hypertrophic responses to β_2 -adrenergic signaling. <i>Journal of Molecular and Cellular Cardiology</i> , 2014, 66, 83-93.	1.9	44
34	A Novel MitoTimer Reporter Gene for Mitochondrial Content, Structure, Stress, and Damage in Vivo. <i>Journal of Biological Chemistry</i> , 2014, 289, 12005-12015.	3.4	196
35	Identification of a novel mitochondrial uncoupler that does not depolarize the plasma membrane. <i>Molecular Metabolism</i> , 2014, 3, 114-123.	6.5	168
36	Mechanisms of cyclic AMP compartmentation revealed by computational models. <i>Journal of General Physiology</i> , 2014, 143, 39-48.	1.9	58

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37	Phenotypic screen quantifying differential regulation of cardiac myocyte hypertrophy identifies CITED4 regulation of myocyte elongation. <i>Journal of Molecular and Cellular Cardiology</i> , 2014, 72, 74-84.	1.9	40
38	Integrating Fluorescent Biosensor Data Using Computational Models. <i>Methods in Molecular Biology</i> , 2014, 1071, 227-248.	0.9	6
39	Modeling Mitochondrial ROS: A Great Balancing Act. <i>Biophysical Journal</i> , 2013, 105, 1287-1288.	0.5	1
40	Identification and Characterization of Poly(I:C)-induced Molecular Responses Attenuated by Nicotine in Mouse Macrophages. <i>Molecular Pharmacology</i> , 2013, 83, 61-72.	2.3	39
41	Cytokine screening identifies NICU patients with Gram-negative bacteremia. <i>Pediatric Research</i> , 2012, 71, 261-266.	2.3	41
42	Regulation of nuclear PKA revealed by spatiotemporal manipulation of cyclic AMP. <i>Nature Chemical Biology</i> , 2012, 8, 375-382.	8.0	118
43	Network Reconstruction and Systems Analysis of Cardiac Myocyte Hypertrophy Signaling. <i>Journal of Biological Chemistry</i> , 2012, 287, 42259-42268.	3.4	82
44	Cardiac biexcitability: Two ways to catch a wave. <i>Heart Rhythm</i> , 2012, 9, 123-124.	0.7	2
45	Calmodulin binding proteins provide domains of local Ca ²⁺ signaling in cardiac myocytes. <i>Journal of Molecular and Cellular Cardiology</i> , 2012, 52, 312-316.	1.9	54
46	Automated image analysis identifies signaling pathways regulating distinct signatures of cardiac myocyte hypertrophy. <i>Journal of Molecular and Cellular Cardiology</i> , 2012, 52, 923-930.	1.9	32
47	Phospholemman is a negative feed-forward regulator of Ca ²⁺ in β^2 -adrenergic signaling, accelerating β^2 -adrenergic inotropy. <i>Journal of Molecular and Cellular Cardiology</i> , 2012, 52, 1048-1055.	1.9	40
48	Automated imaging reveals a concentration dependent delay in reversibility of cardiac myocyte hypertrophy. <i>Journal of Molecular and Cellular Cardiology</i> , 2012, 53, 282-290.	1.9	21
49	Whole-Genome Metabolic Network Reconstruction and Constraint-Based Modeling. <i>Methods in Enzymology</i> , 2011, 500, 411-433.	1.0	33
50	Bigger, Better, Faster. <i>Journal of Cardiovascular Pharmacology</i> , 2011, 58, 462-469.	1.9	42
51	Systems Analysis of Small Signaling Modules Relevant to Eight Human Diseases. <i>Annals of Biomedical Engineering</i> , 2011, 39, 621-635.	2.5	10
52	Automated image analysis of cardiac myocyte Ca ²⁺ dynamics. , 2011, 2011, 4661-4.		2
53	Robustness portraits of diverse biological networks conserved despite order-of-magnitude parameter uncertainty. <i>Bioinformatics</i> , 2011, 27, 2888-2894.	4.1	15
54	Computational Models Reduce Complexity and Accelerate Insight Into Cardiac Signaling Networks. <i>Circulation Research</i> , 2011, 108, 85-97.	4.5	59

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55	Graphical Approach to Model Reduction for Nonlinear Biochemical Networks. PLoS ONE, 2011, 6, e23795.	2.5	8
56	Cardiac Models in Drug Discovery and Development: A Review. Critical Reviews in Biomedical Engineering, 2011, 39, 379-395.	0.9	25
57	Modeling cardiac \hat{I}^2 -adrenergic signaling with normalized-Hill differential equations: comparison with a biochemical model. BMC Systems Biology, 2010, 4, 157.	3.0	86
58	Synergy between CaMKII Substrates and \hat{I}^2 -Adrenergic Signaling in \hat{A} Regulation of Cardiac Myocyte Ca ²⁺ Handling. Biophysical Journal, 2010, 99, 2038-2047.	0.5	114
59	Endotoxin depresses heart rate variability in mice: cytokine and steroid effects. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 297, R1019-R1027.	1.8	102
60	Multiscale modeling in rodent ventricular myocytes. IEEE Engineering in Medicine and Biology Magazine, 2009, 28, 46-57.	0.8	18
61	Calmodulin Mediates Differential Sensitivity of CaMKII and Calcineurin to Local Ca ²⁺ in Cardiac Myocytes. Biophysical Journal, 2008, 95, 4597-4612.	0.5	138
62	Differential Integration of Ca ²⁺ -Calmodulin Signal in Intact Ventricular Myocytes at Low and High Affinity Ca ²⁺ -Calmodulin Targets. Journal of Biological Chemistry, 2008, 283, 31531-31540.	3.4	37
63	PKA Activity Compartmentation Requires Slow Nuclear Transport Kinetics in Cardiac Myocytes. FASEB Journal, 2008, 22, 312-312.	0.5	0
64	Abstract 802: Dynamic FRET-Based Ca-Calmodulin Measurements in Intact Ventricular Myocytes Uncover Differential Signal Integration Due to Ca-Calmodulin Affinity. Circulation, 2007, 116, .	1.6	1
65	Cardiac beta-Adrenergic Signaling: From Subcellular Microdomains to Heart Failure. Annals of the New York Academy of Sciences, 2006, 1080, 348-361.	3.8	52
66	Systems analysis of PKA-mediated phosphorylation gradients in live cardiac myocytes. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 12923-12928.	7.1	132
67	Local plantar pressure relief in therapeutic footwear: design guidelines from finite element models. Journal of Biomechanics, 2005, 38, 1798-1806.	2.1	88
68	Modeling Regulation of Cardiac KATP and L-type Ca ²⁺ Currents by ATP, ADP, and Mg ²⁺ . Biophysical Journal, 2005, 88, 2234-2249.	0.5	33
69	Proarrhythmic Consequences of a KCNQ1 AKAP-Binding Domain Mutation. Circulation Research, 2004, 95, 1216-1224.	4.5	110
70	Mechanistic systems models of cell signaling networks: a case study of myocyte adrenergic regulation. Progress in Biophysics and Molecular Biology, 2004, 85, 261-278.	2.9	66
71	Modeling \hat{I}^2 -Adrenergic Control of Cardiac Myocyte Contractility in Silico. Journal of Biological Chemistry, 2003, 278, 47997-48003.	3.4	202