Jeffrey J Saucerman

List of Publications by Year
in descending order

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71 papers	3,630 citations	147726 31 h-index	143943 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. Journal of Molecular and Cellular Cardiology, 2022, 164, 17-28.	0.9	8
2	Brahma safeguards canalization of cardiac mesoderm differentiation. Nature, 2022, 602, 129-134.	13.7	22
3	Inhibition of DYRK1a Enhances Cardiomyocyte Cycling After Myocardial Infarction. Circulation Research, 2022, 130, 1345-1361.	2.0	12
4	Multiscale model of heart growth during pregnancy: integrating mechanical and hormonal signaling. Biomechanics and Modeling in Mechanobiology, 2022, 21, 1267-1283.	1.4	5
5	A multiscale model of cardiac concentric hypertrophy incorporating both mechanical and hormonal drivers of growth. Biomechanics and Modeling in Mechanobiology, 2021, 20, 293-307.	1.4	19
6	Network Analysis Reveals a Distinct Axis of Macrophage Activation in Response to Conflicting Inflammatory Cues. Journal of Immunology, 2021, 206, 883-891.	0.4	26
7	Network modelâ€based screen for FDAâ€approved drugs affecting cardiac fibrosis. CPT: Pharmacometrics and Systems Pharmacology, 2021, 10, 377-388.	1.3	16
8	Mechano-chemo signaling interactions modulate matrix production by cardiac fibroblasts. Matrix Biology Plus, 2021, 10, 100055.	1.9	9
9	Computational model of cardiomyocyte apoptosis identifies mechanisms of tyrosine kinase inhibitor-induced cardiotoxicity. Journal of Molecular and Cellular Cardiology, 2021, 155, 66-77.	0.9	18
10	The Cell Surface Receptors Ror1/2 Control Cardiac Myofibroblast Differentiation. Journal of the American Heart Association, 2021, 10, e019904.	1.6	4
11	A kinetic model of beta-adrenergic control in cardiac myocytes. Physiome, 2021, , .	0.3	0
12	A kinetic model of beta-adrenergic control in cardiac myocytes. Physiome, 2021, , .	0.3	0
13	Computational model predicts paracrine and intracellular drivers of fibroblast phenotype after myocardial infarction. Matrix Biology, 2020, 91-92, 136-151.	1.5	31
14	Quantification of model and data uncertainty in a network analysis of cardiac myocyte mechanosignalling. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190336.	1.6	12
15	Context-specific network modeling identifies new crosstalk in Î²-adrenergic cardiac hypertrophy. PLoS Computational Biology, 2020, 16, e1008490.	1.5	12
16	Mechanical regulation of gene expression in cardiac myocytes and fibroblasts. Nature Reviews Cardiology, 2019, 16, 361-378.	6.1	134
17	Multiscale Coupling of an Agent-Based Model of Tissue Fibrosis and a Logic-Based Model of Intracellular Signaling. Frontiers in Physiology, 2019, 10, 1481.	1.3	29
18	High-content phenotypic assay for proliferation of human iPSC-derived cardiomyocytes identifies L-type calcium channels as targets. Journal of Molecular and Cellular Cardiology, 2019, 127, 204-214.	0.9	20

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19	Atg2, Atg9 and Atg18 in mitochondrial integrity, cardiac function and healthspan in Drosophila. Journal of Molecular and Cellular Cardiology, 2019, 127, 116-124.	0.9	25
20	A personalized, multiomics approach identifies genes involved in cardiac hypertrophy and heart failure. Npj Systems Biology and Applications, 2018, 4, 12.	1.4	22
21	High content analysis identifies unique morphological features of reprogrammed cardiomyocytes. Scientific Reports, 2018, 8, 1258.	1.6	23
22	Network-based predictions of in vivo cardiac hypertrophy. Journal of Molecular and Cellular Cardiology, 2018, 121, 180-189.	0.9	20
23	Mapping macrophage polarization over the myocardial infarction time continuum. Basic Research in Cardiology, 2018, 113, 26.	2.5	189
24	An engineering design approach to systems biology. Integrative Biology (United Kingdom), 2017, 9, 574-583.	0.6	22
25	Ampk phosphorylation of Ulk1 is required for targeting of mitochondria to lysosomes in exercise-induced mitophagy. Nature Communications, 2017, 8, 548.	5.8	333
26	Mechanistic Systems Modeling to Improve Understanding and Prediction of Cardiotoxicity Caused by Targeted Cancer Therapeutics. Frontiers in Physiology, 2017, 8, 651.	1.3	26
27	Predictive model identifies key network regulators of cardiomyocyte mechano-signaling. PLoS Computational Biology, 2017, 13, e1005854.	1.5	53
28	Knowledge gaps to understanding cardiac macrophage polarization following myocardial infarction. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2016, 1862, 2288-2292.	1.8	39
29	Computational modeling of cardiac fibroblasts and fibrosis. Journal of Molecular and Cellular Cardiology, 2016, 93, 73-83.	0.9	63
30	A computational model of cardiac fibroblast signaling predicts context-dependent drivers of myofibroblast differentiation. Journal of Molecular and Cellular Cardiology, 2016, 94, 72-81.	0.9	79
31	Scaffold State Switching Amplifies, Accelerates, and Insulates Protein Kinase C Signaling. Journal of Biological Chemistry, 2014, 289, 2353-2360.	1.6	24
32	Modeling the Effects of<i>Î²</i>₁-Adrenergic Receptor Blockers and Polymorphisms on Cardiac Myocyte Ca²⁺Handling. Molecular Pharmacology, 2014, 86, 222-230.	1.0	16
33	PKA catalytic subunit compartmentation regulates contractile and hypertrophic responses to Î²-adrenergic signaling. Journal of Molecular and Cellular Cardiology, 2014, 66, 83-93.	0.9	44
34	A Novel MitoTimer Reporter Gene for Mitochondrial Content, Structure, Stress, and Damage in Vivo. Journal of Biological Chemistry, 2014, 289, 12005-12015.	1.6	196
35	Identification of a novel mitochondrial uncoupler that does not depolarize the plasma membrane. Molecular Metabolism, 2014, 3, 114-123.	3.0	168
36	Mechanisms of cyclic AMP compartmentation revealed by computational models. Journal of General Physiology, 2014, 143, 39-48.	0.9	58

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37	Phenotypic screen quantifying differential regulation of cardiac myocyte hypertrophy identifies CITED4 regulation of myocyte elongation. Journal of Molecular and Cellular Cardiology, 2014, 72, 74-84.	0.9	40
38	Integrating Fluorescent Biosensor Data Using Computational Models. Methods in Molecular Biology, 2014, 1071, 227-248.	0.4	6
39	Modeling Mitochondrial ROS: AÂGreat Balancing Act. Biophysical Journal, 2013, 105, 1287-1288.	0.2	1
40	Identification and Characterization of Poly(I:C)-induced Molecular Responses Attenuated by Nicotine in Mouse Macrophages. Molecular Pharmacology, 2013, 83, 61-72.	1.0	39
41	Cytokine screening identifies NICU patients with Gram-negative bacteremia. Pediatric Research, 2012, 71, 261-266.	1.1	41
42	Regulation of nuclear PKA revealed by spatiotemporal manipulation of cyclic AMP. Nature Chemical Biology, 2012, 8, 375-382.	3.9	118
43	Network Reconstruction and Systems Analysis of Cardiac Myocyte Hypertrophy Signaling. Journal of Biological Chemistry, 2012, 287, 42259-42268.	1.6	82
44	Cardiac biexcitability: Two ways to catch a wave. Heart Rhythm, 2012, 9, 123-124.	0.3	2
45	Calmodulin binding proteins provide domains of local Ca2+ signaling in cardiac myocytes. Journal of Molecular and Cellular Cardiology, 2012, 52, 312-316.	0.9	54
46	Automated image analysis identifies signaling pathways regulating distinct signatures of cardiac myocyte hypertrophy. Journal of Molecular and Cellular Cardiology, 2012, 52, 923-930.	0.9	32
47	Phospholemman is a negative feed-forward regulator of Ca2+ in Î²-adrenergic signaling, accelerating Î²-adrenergic inotropy. Journal of Molecular and Cellular Cardiology, 2012, 52, 1048-1055.	0.9	40
48	Automated imaging reveals a concentration dependent delay in reversibility of cardiac myocyte hypertrophy. Journal of Molecular and Cellular Cardiology, 2012, 53, 282-290.	0.9	21
49	Whole-Genome Metabolic Network Reconstruction and Constraint-Based Modelingâ‹†. Methods in Enzymology, 2011, 500, 411-433.	0.4	33
50	Bigger, Better, Faster. Journal of Cardiovascular Pharmacology, 2011, 58, 462-469.	0.8	42
51	Systems Analysis of Small Signaling Modules Relevant to Eight Human Diseases. Annals of Biomedical Engineering, 2011, 39, 621-635.	1.3	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. Bioinformatics, 2011, 27, 2888-2894.	1.8	15
54	Computational Models Reduce Complexity and Accelerate Insight Into Cardiac Signaling Networks. Circulation Research, 2011, 108, 85-97.	2.0	59

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55	Graphical Approach to Model Reduction for Nonlinear Biochemical Networks. PLoS ONE, 2011, 6, e23795.	1.1	8
56	Cardiac Models in Drug Discovery and Development: A Review. Critical Reviews in Biomedical Engineering, 2011, 39, 379-395.	0.5	25
57	Modeling cardiac Î²-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 Î²-Adrenergic Signaling inÂRegulation of Cardiac Myocyte Ca2+ Handling. Biophysical Journal, 2010, 99, 2038-2047.	0.2	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.	0.9	102
60	Multiscale modeling in rodent ventricular myocytes. IEEE Engineering in Medicine and Biology Magazine, 2009, 28, 46-57.	1.1	18
61	Calmodulin Mediates Differential Sensitivity of CaMKII and Calcineurin to Local Ca2+ in Cardiac Myocytes. Biophysical Journal, 2008, 95, 4597-4612.	0.2	138
62	Differential Integration of Ca2+-Calmodulin Signal in Intact Ventricular Myocytes at Low and High Affinity Ca2+-Calmodulin Targets. Journal of Biological Chemistry, 2008, 283, 31531-31540.	1.6	37
63	PKA Activity Compartmentation Requires Slow Nuclear Transport Kinetics in Cardiac Myocytes. FASEB Journal, 2008, 22, 312-312.	0.2	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.	1.8	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.	3.3	132
67	Local plantar pressure relief in therapeutic footwear: design guidelines from finite element models. Journal of Biomechanics, 2005, 38, 1798-1806.	0.9	88
68	Modeling Regulation of Cardiac KATP and L-type Ca2+ Currents by ATP, ADP, and Mg2+. Biophysical Journal, 2005, 88, 2234-2249.	0.2	33
69	Proarrhythmic Consequences of a KCNQ1 AKAP-Binding Domain Mutation. Circulation Research, 2004, 95, 1216-1224.	2.0	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.	1.4	66
71	Modeling Î²-Adrenergic Control of Cardiac Myocyte Contractility in Silico. Journal of Biological Chemistry, 2003, 278, 47997-48003.	1.6	202