Saleet Jafri

List of Publications by Year
in descending order

85 papers	3,791 citations	147801 31 h-index	128289 60 g-index
86 all docs	86 docs citations	86 times ranked	3025 citing authors

#	Article	IF	Citations
1	Machine learning-based prediction of drug and ligand binding in BCL-2 variants through molecular dynamics. Computers in Biology and Medicine, 2022, 140, 105060.	7.0	8
2	Active site prediction of phosphorylated SARS-CoV-2 N-Protein using molecular simulation. Informatics in Medicine Unlocked, 2022, 29, 100889.	3.4	1
3	Optimizing peptide inhibitors of SARS-Cov-2 nsp10/nsp16 methyltransferase predicted through molecular simulation and machine learning. Informatics in Medicine Unlocked, 2022, 29, 100886.	3.4	5
4	Understanding the Dynamics of the Transient and Permanent Opening Events of the Mitochondrial Permeability Transition Pore with a Novel Stochastic Model. Membranes, 2022, 12, 494.	3.0	3
5	Critical Requirements for the Initiation of a Cardiac Arrhythmia in Rat Ventricle: How Many Myocytes?. Cells, 2022, 11, 1878.	4.1	3
6	Computational Modeling of Mitochondria to Understand the Dynamics of Oxidative Stress. Methods in Molecular Biology, 2022, , 363-422.	0.9	1
7	Predicting Genetic Variation Severity Using Machine Learning to Interpret Molecular Simulations. Biophysical Journal, 2021, 120, 189-204.	0.5	15
8	T lymphocytes from malignant hyperthermia-susceptible mice display aberrations in intracellular calcium signaling and mitochondrial function. Cell Calcium, 2021, 93, 102325.	2.4	5
9	Transcriptomic analysis of Multiple Sclerosis patient-derived monocytes by RNA-Sequencing for candidate gene discovery. Informatics in Medicine Unlocked, 2021, 23, 100563.	3.4	1
10	Application of machine learning in understanding atherosclerosis: Emerging insights. APL Bioengineering, 2021, 5, 011505.	6.2	14
11	Identifying Top Predictors of Change in Noncalcified Coronary Burden in Psoriasis by Machine Learning Over 1-Year. Journal of Psoriasis and Psoriatic Arthritis, 2021, 6, 113-117.	0.7	0
12	X-ROS Signaling Depends on Length-Dependent Calcium Buffering by Troponin. Cells, 2021, 10, 1189.	4.1	5
13	Effect of crista morphology on mitochondrial ATP output: A computational study. Current Research in Physiology, 2021, 4, 163-176.	1.7	28
14	Cardiac Alternans Occurs through the Synergy of Voltage- and Calcium-Dependent Mechanisms. Membranes, 2021, 11, 794.	3.0	9
15	Data Mining of Molecular Simulations Suggest Key Amino Acid Residues for Aggregation, Signaling and Drug Action. Biomolecules, 2021, 11, 1541.	4.0	2
16	In Silico Prediction of the Phosphorylation of NS3 as an Essential Mechanism for Dengue Virus Replication and the Antiviral Activity of Quercetin. Biology, 2021, 10, 1067.	2.8	5
17	A Stochastic Spatiotemporal Model of Rat Ventricular Myocyte Calcium Dynamics Demonstrated Necessary Features for Calcium Wave Propagation. Membranes, 2021, 11, 989.	3.0	9
18	Application of machine learning to determine top predictors of noncalcified coronary burden in psoriasis: An observational cohort study. Journal of the American Academy of Dermatology, 2020, 83, 1647-1653.	1.2	20

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19	lncRNAKB, a knowledgebase of tissue-specific functional annotation and trait association of long noncoding RNA. Scientific Data, 2020, 7, 326.	5.3	40
20	Ca2+ signaling in T lymphocytes: the interplay of the endoplasmic reticulum, mitochondria, membrane potential, and CRAC channels on transcription factor activation. Heliyon, 2020, 6, e03526.	3.2	18
21	Slow-Rapid-Slow Pacing in the Heart Having CASQ2G112+5X Gene Mutation Produces Eads as the Mechanism of CPVT During Adrenergic Stimulation. Biophysical Journal, 2020, 118, 566a.	0.5	0
22	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. PLoS ONE, 2020, 15, e0243205.	2.5	3
23	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
24	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
25	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
26	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
27	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
28	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
29	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
30	Neuropeptide S receptor gene Asn107 polymorphism in obese male individuals in Pakistan. , 2020, 15, e0243205.		0
31	Translational Applications of Protein Structure Simulation: Predicting Phenotype of Missense Variants. Biophysical Journal, 2019, 116, 13a.	0.5	3
32	SNP2SIM: a modular workflow for standardizing molecular simulation and functional analysis of protein variants. BMC Bioinformatics, 2019, 20, 171.	2.6	7
33	Cardiac Calcium Signaling and Mitochondrial Metabolic Function. Biophysical Journal, 2019, 116, 270a.	0.5	0
34	Ionotropic and Metabotropic Mechanisms of Allosteric Modulation of <i>Î±</i>7 Nicotinic Receptor Intracellular Calcium. Molecular Pharmacology, 2018, 93, 601-611.	2.3	39
35	Mitochondrial Permeability Transition Pore and Number of Openings. Biophysical Journal, 2017, 112, 440a.	0.5	1
36	Ryanodine receptor sensitivity governs the stability and synchrony of local calcium release during cardiac excitation-contraction coupling. Journal of Molecular and Cellular Cardiology, 2016, 92, 82-92.	1.9	37

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37	Calcium sparks in the heart: dynamics and regulation. Research and Reports in Biology, 2015, 6, 203.	0.2	18
38	Ryanodine receptor cluster fragmentation and redistribution in persistent atrial fibrillation enhance calcium release. Cardiovascular Research, 2015, 108, 387-398.	3.8	93
39	Modeling Local X-ROS and Calcium Signaling in the Heart. Biophysical Journal, 2015, 109, 2037-2050.	0.5	28
40	The Phase Lag between Agonist-Induced Oscillatory Ca and IP Signals Does Not Imply Causality (December 2015). Calcium Signaling, 2015, 2, 1-10.	0.0	1
41	Mechanisms of Myofascial Pain. International Scholarly Research Notices, 2014, 2014, 1-16.	0.9	127
42	Modeling Mitochondrial Function and Its Role in Disease. Progress in Molecular Biology and Translational Science, 2014, 123, 103-125.	1.7	9
43	Superresolution Modeling of Calcium Release in the Heart. Biophysical Journal, 2014, 107, 3018-3029.	0.5	96
44	A Small Number of Cells is Sufficient to Trigger a Cardiac Arrhythmia: Stochastic Computational Studies. Biophysical Journal, 2014, 106, 112a.	0.5	2
45	Dynamics of Calcium Sparks and SR Calcium Leak During Excitation-Contraction Coupling in Mouse Heart Cells. Biophysical Journal, 2014, 106, 320a-321a.	0.5	0
46	Ionic Regulation of Mitochondrial ROS Dynamics: A Computational Modeling Study. Biophysical Journal, 2013, 104, 305a.	0.5	1
47	The connection between inner membrane topology and mitochondrial function. Journal of Molecular and Cellular Cardiology, 2013, 62, 51-57.	1.9	101
48	Models of Excitationâ€"Contraction Coupling in Cardiac Ventricular Myocytes. Methods in Molecular Biology, 2012, 910, 309-335.	0.9	19
49	Stimulated Emission Depletion Live-Cell Super-Resolution Imaging Shows Proliferative Remodeling of T-Tubule Membrane Structures After Myocardial Infarction. Circulation Research, 2012, 111, 402-414.	4.5	179
50	Dynamics of Calcium Sparks and Calcium Leak in the Heart. Biophysical Journal, 2011, 101, 1287-1296.	0.5	112
51	Stochastic simulation of cardiac ventricular myocyte calcium dynamics and waves. , 2011, 2011, 4677-80.		3
52	Predicting Local SR Ca2+ Dynamics during Ca2+ Wave Propagation in Ventricular Myocytes. Biophysical Journal, 2010, 98, 2515-2523.	0.5	34
53	Models of cardiac excitationâ€"contraction coupling in ventricular myocytes. Mathematical Biosciences, 2010, 226, 1-15.	1.9	53
54	A Technique to Accelerate Stochastic Markov Chain Monte Carlo Simulations of Calcium-Induced Calcium Release in Cardiac Myocytes. Biophysical Journal, 2010, 98, 295a.	0.5	0

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55	Using phase relations to identify potential mechanisms for metabolic oscillations in isolated Î²-cell mitochondria. Islets, 2009, 1, 87-94.	1.8	11
56	Moment Closure for Local Control Models of Calcium-Induced Calcium Release in Cardiac Myocytes. Biophysical Journal, 2008, 95, 1689-1703.	0.5	44
57	NON-SPATIAL WHOLE CELL MODELS OF GLOBAL CALCIUM RESPONSES THAT ACCOUNT FOR HETEROGENEOUS DOMAIN CALCIUM CONCENTRATIONS. , 2008, , .		0
58	Effect of Ca2+ on cardiac mitochondrial energy production is modulated by Na+ and H+ dynamics. American Journal of Physiology - Cell Physiology, 2007, 292, C2004-C2020.	4.6	57
59	A Probability Density Approach to Modeling Local Control of Calcium-Induced Calcium Release in Cardiac Myocytes. Biophysical Journal, 2007, 92, 2311-2328.	0.5	62
60	Modeling the mechanism of metabolic oscillations in ischemic cardiac myocytes. Journal of Theoretical Biology, 2006, 242, 801-817.	1.7	21
61	NFAT and NFÎºB Activation in T Lymphocytes: A Model of Differential Activation of Gene Expression. Annals of Biomedical Engineering, 2006, 34, 1712-1728.	2.5	59
62	The Ca2+ leak paradox and â€œrogue ryanodine receptorsâ€: SR Ca2+ efflux theory and practice. Progress in Biophysics and Molecular Biology, 2006, 90, 172-185.	2.9	110
63	Mitochondrial Calcium Signaling and Energy Metabolism. Annals of the New York Academy of Sciences, 2005, 1047, 127-137.	3.8	48
64	DYNAMICS OF CARDIAC INTRACELLULAR Ca2+ HANDLING â€" FROM EXPERIMENTS TO VIRTUAL CELLS. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2003, 13, 3535-3560.	1.7	1
65	Local Ca2+ Signaling and EC Coupling in Heart: Ca2+ Sparks and the Regulation of the [Ca2+]i Transient. Journal of Molecular and Cellular Cardiology, 2002, 34, 941-950.	1.9	99
66	Termination of Cardiac Ca2+ Sparks: An Investigative Mathematical Model of Calcium-Induced Calcium Release. Biophysical Journal, 2002, 83, 59-78.	0.5	286
67	Cardiac Energy Metabolism: Models of Cellular Respiration. Annual Review of Biomedical Engineering, 2001, 3, 57-81.	12.3	81
68	Modeling short-term interval-force relations in cardiac muscle. American Journal of Physiology - Heart and Circulatory Physiology, 2000, 278, H913-H931.	3.2	60
69	Electrophysiological Modeling of Cardiac Ventricular Function: From Cell to Organ. Annual Review of Biomedical Engineering, 2000, 2, 119-155.	12.3	110
70	Mechanisms of Altered Excitation-Contraction Coupling in Canine Tachycardia-Induced Heart Failure, II. Circulation Research, 1999, 84, 571-586.	4.5	557
71	Subcellular [Ca ²⁺] _i Gradients During Excitation-Contraction Coupling in Newborn Rabbit Ventricular Myocytes. Circulation Research, 1999, 85, 415-427.	4.5	158
72	Modeling Gain and Gradedness of Ca2+ Release in the Functional Unit of the Cardiac Diadic Space. Biophysical Journal, 1999, 77, 1871-1884.	0.5	105

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73	Cardiac Sodium Channel Markov Model with Temperature Dependence and Recovery from Inactivation. Biophysical Journal, 1999, 76, 1868-1885.	0.5	70
74	Modeling Short-Term Interval-Force Relations in Cardiac Muscle. Annals of the New York Academy of Sciences, 1998, 853, 345-349.	3.8	7
75	Modeling the cellular basis of altered excitationâ€"contraction coupling in heart failure. Progress in Biophysics and Molecular Biology, 1998, 69, 497-514.	2.9	35
76	Cardiac Ca2+ Dynamics: The Roles of Ryanodine Receptor Adaptation and Sarcoplasmic Reticulum Load. Biophysical Journal, 1998, 74, 1149-1168.	0.5	300
77	Agonist-induced calcium waves in oscillatory cells: A biological example of Burgers' equation. Bulletin of Mathematical Biology, 1997, 59, 1125-1144.	1.9	18
78	Agonist-induced calcium waves in oscillatory cells: A biological example of Burgers' equation. Bulletin of Mathematical Biology, 1997, 59, 1125-1144.	1.9	6
79	A theoretical study of cytosolic calcium waves in xenopus oocytes. Journal of Theoretical Biology, 1995, 172, 209-216.	1.7	23
80	On the roles of Ca2+ diffusion, Ca2+ buffers, and the endoplasmic reticulum in IP3-induced Ca2+ waves. Biophysical Journal, 1995, 69, 2139-2153.	0.5	129
81	A membrane potential model with counterions for cytosolic calcium oscillations. Cell Calcium, 1994, 16, 9-19.	2.4	22
82	Diffusion of inositol 1,4,5-trisphosphate but not Ca2+ is necessary for a class of inositol 1,4,5-trisphosphate-induced Ca2+ waves.. Proceedings of the National Academy of Sciences of the United States of America, 1994, 91, 9485-9489.	7.1	41
83	Disulfide bonding patterns and protein topologies. Protein Science, 1993, 2, 41-54.	7.6	51
84	A membrane model for cytosolic calcium oscillations. A study using Xenopus oocytes. Biophysical Journal, 1992, 63, 235-246.	0.5	59
85	Models of Cardiac Ca 2+-Induced Ca 2+ Release and Ca 2+ Sparks. Lecture Notes in Physics, 0, , 97-114.	0.7	3