Kumar Selvarajoo

List of Publications by Year
in descending order

61 papers	1,033 citations	393982 19 h-index	454577 30 g-index
77 all docs	77 docs citations	77 times ranked	1174 citing authors

#	Article	IF	Citations
1	Identifying toggle genes from transcriptome-wide scatter: A new perspective for biological regulation. Genomics, 2022, 114, 215-228.	1.3	6
2	The transformation of our food system using cellular agriculture: What lies ahead and who will lead it?. Trends in Food Science and Technology, 2022, 127, 368-376.	7.8	12
3	The need for integrated systems biology approaches for biotechnological applications. Biotechnology Notes, 2021, 2, 39-43.	0.7	4
4	Searching for unifying laws of general adaptation syndrome. Physics of Life Reviews, 2021, 37, 97-99.	1.5	1
5	GeneCloudOmics: A Data Analytic Cloud Platform for High-Throughput Gene Expression Analysis. Frontiers in Bioinformatics, 2021, 1, .	1.0	4
6	Systems Biology to Understand and Regulate Human Retroviral Proinflammatory Response. Frontiers in Immunology, 2021, 12, 736349.	2.2	5
7	ScatLay: utilizing transcriptome-wide noise for identifying and visualizing differentially expressed genes. Scientific Reports, 2020, 10, 17483.	1.6	6
8	Systems biology approaches integrated with artificial intelligence for optimized metabolic engineering. Metabolic Engineering Communications, 2020, 11, e00149.	1.9	46
9	Attractor Concepts to Evaluate the Transcriptome-wide Dynamics Guiding Anaerobic to Aerobic State Transition in Escherichia coli. Scientific Reports, 2020, 10, 5878.	1.6	12
10	Systems Biology Approaches for Understanding Biofilm Response. ACS Symposium Series, 2020, , 9-29.	0.5	0
11	ABioTrans: A Biostatistical Tool for Transcriptomics Analysis. Frontiers in Genetics, 2019, 10, 499.	1.1	7
12	Defining rules for cancer cell proliferation in TRAIL stimulation. Npj Systems Biology and Applications, 2019, 5, 5.	1.4	7
13	Longâ€range order and shortâ€range disorder in <i>Saccharomyces cerevisiae</i> biofilm. Engineering Biology, 2019, 3, 12-19.	0.8	7
14	Searching for simple rules in Pseudomonas aeruginosa biofilm formation. BMC Research Notes, 2019, 12, 763.	0.6	3
15	Largeâ€scaleâ€free network organisation is likely key for biofilm phase transition. Engineering Biology, 2019, 3, 67-71.	0.8	4
16	Complexity of Biochemical and Genetic Responses Reduced Using Simple Theoretical Models. Methods in Molecular Biology, 2018, 1702, 171-201.	0.4	10
17	Hints from Information Theory for Analyzing Dynamic and High-Dimensional Biological Data. RNA Technologies, 2018, , 313-336.	0.2	1
18	Order Parameter in Bacterial Biofilm Adaptive Response. Frontiers in Microbiology, 2018, 9, 1721.	1.5	8

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19	A systems biology approach to overcome TRAIL resistance in cancer treatment. Progress in Biophysics and Molecular Biology, 2017, 128, 142-154.	1.4	24
20	Can the second law of thermodynamics hold in cell cultures?. Frontiers in Genetics, 2015, 6, 262.	1.1	4
21	Systems Biology Strategy Reveals PKCÃŽÂ´ is Key for Sensitizing TRAIL-Resistant Human Fibrosarcoma. Frontiers in Immunology, 2015, 5, 659.	2.2	12
22	The reduction of gene expression variability from single cells to populations follows simple statistical laws. Genomics, 2015, 105, 137-144.	1.3	33
23	Tracking global gene expression responses in T cell differentiation. Gene, 2015, 569, 259-266.	1.0	20
24	Measuring merit: Take the risk. Science, 2015, 347, 139-140.	6.0	2
25	Advances in systems immunology and cancer. Frontiers in Physiology, 2014, 5, 249.	1.3	1
26	Beyond MyD88 and TRIF Pathways in Toll-Like Receptor Signaling. Frontiers in Immunology, 2014, 5, 70.	2.2	61
27	Parameter-less approaches for interpreting dynamic cellular response. Journal of Biological Engineering, 2014, 8, 23.	2.0	8
28	Transcriptome-wide Variability in Single Embryonic Development Cells. Scientific Reports, 2014, 4, 7137.	1.6	66
29	Physical Laws Shape Biology. Science, 2013, 339, 646-646.	6.0	11
30	A systems biology approach to suppress TNF-induced proinflammatory gene expressions. Cell Communication and Signaling, 2013, 11, 84.	2.7	28
31	Uncertainty and certainty in cellular dynamics. Frontiers in Genetics, 2013, 4, 68.	1.1	4
32	Non-genetic adaptive dynamics for cellular robustness. Frontiers in Genetics, 2013, 4, 287.	1.1	3
33	Basics of the Mammalian Immune System. Systems Biology, 2013, , 25-33.	0.1	0
34	Stochasticity and Variability: Insights from Single-Cell Dynamics. Systems Biology, 2013, , 105-116.	0.1	0
35	Systems Biology of Population Cell Response. Systems Biology, 2013, , 1-11.	0.1	0
36	Investigating the TLR3 Signaling Dynamics. Systems Biology, 2013, , 65-74.	0.1	0

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37	Inferring Novel Features of the TLR4 Pathways. Systems Biology, 2013, , 35-52.	0.1	0
38	Investigating Single-Cell Stochasticity in TRAIL Signaling. Systems Biology, 2013, , 117-124.	0.1	0
39	Finding Chaos in Biology. Systems Biology, 2013, , 131-140.	0.1	0
40	Finding Self-organization from the Dynamic Gene Expressions of Innate Immune Responses. Frontiers in Physiology, 2012, 3, 192.	1.3	7
41	Is central dogma a global property of cellular information flow?. Frontiers in Physiology, 2012, 3, 439.	1.3	28
42	Investigation of stochasticity in TRAIL signaling cancer model. , 2012, , .		0
43	The Recognition of Chaos in Hostâ€"Pathogen Response. Frontiers in Physiology, 2012, 3, 7.	1.3	1
44	Understanding multimodal biological decisions from single cell and population dynamics. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 385-399.	6.6	24
45	Emergence of macroscopic simplicity from the Tumor Necrosis Factor-alpha signaling dynamics. Nature Precedings, 2011, , .	0.1	1
46	Macroscopic law of conservation revealed in the population dynamics of Toll-like receptor signaling. Cell Communication and Signaling, 2011, 9, 9.	2.7	24
47	Enhancing apoptosis in TRAIL-resistant cancer cells using fundamental response rules. Scientific Reports, 2011, 1, 144.	1.6	26
48	Signaling Flux Redistribution concept can switch survival to apoptosis in cancer cells. Nature Precedings, 2010, , .	0.1	0
49	Genetic vehicle comprising majority of lowly expressed genes guides cell fate decision. Nature Precedings, 2010, , .	0.1	0
50	Collective Dynamics of Specific Gene Ensembles Crucial for Neutrophil Differentiation: The Existence of Genome Vehicles Revealed. PLoS ONE, 2010, 5, e12116.	1.1	23
51	Emergent Genome-Wide Control in Wildtype and Genetically Mutated Lipopolysaccarides-Stimulated Macrophages. PLoS ONE, 2009, 4, e4905.	1.1	45
52	CAN COMPLEX CELLULAR PROCESSES BE GOVERNED BY SIMPLE LINEAR RULES?. Journal of Bioinformatics and Computational Biology, 2009, 07, 243-268.	0.3	20
53	Local and global responses in complex gene regulation networks. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1738-1746.	1.2	40
54	In Silico Models for Metabolic Systems Engineering. , 2009, , .		1

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55	Predicting Novel Features of Toll-Like Receptor 3 Signaling in Macrophages. PLoS ONE, 2009, 4, e4661.	1.1	25
56	Signaling Flux Redistribution at Toll-Like Receptor Pathway Junctions. PLoS ONE, 2008, 3, e3430.	1.1	43
57	Toll-like receptor signal transduction. Experimental and Molecular Medicine, 2007, 39, 421-438.	3.2	211
58	Gene expression waves. FEBS Journal, 2007, 274, 2878-2886.	2.2	38
59	Systematic Determination of Biological Network Topology: Nonintegral Connectivity Method (NICM). , 2007, , 449-471.		4
60	Sequential Logic Model Deciphers Dynamic Transcriptional Control of Gene Expressions. PLoS ONE, 2007, 2, e776.	1.1	7
61	Discovering differential activation machinery of the Toll-like receptor 4 signaling pathways in MyD88 knockouts. FEBS Letters, 2006, 580, 1457-1464.	1.3	30