Kumar Selvarajoo

List of Publications by Year
in descending order

61 papers	1,033 citations	394286 19 h-index	454834 30 g-index
77 all docs	77 docs citations	77 times ranked	1174 citing authors

#	Article	IF	Citations
1	Toll-like receptor signal transduction. Experimental and Molecular Medicine, 2007, 39, 421-438.	3.2	211
2	Transcriptome-wide Variability in Single Embryonic Development Cells. Scientific Reports, 2014, 4, 7137.	1.6	66
3	Beyond MyD88 and TRIF Pathways in Toll-Like Receptor Signaling. Frontiers in Immunology, 2014, 5, 70.	2.2	61
4	Systems biology approaches integrated with artificial intelligence for optimized metabolic engineering. Metabolic Engineering Communications, 2020, 11, e00149.	1.9	46
5	Emergent Genome-Wide Control in Wildtype and Genetically Mutated Lipopolysaccarides-Stimulated Macrophages. PLoS ONE, 2009, 4, e4905.	1.1	45
6	Signaling Flux Redistribution at Toll-Like Receptor Pathway Junctions. PLoS ONE, 2008, 3, e3430.	1.1	43
7	Local and global responses in complex gene regulation networks. Physica A: Statistical Mechanics and Its Applications, 2009, 388, 1738-1746.	1.2	40
8	Gene expression waves. FEBS Journal, 2007, 274, 2878-2886.	2.2	38
9	The reduction of gene expression variability from single cells to populations follows simple statistical laws. Genomics, 2015, 105, 137-144.	1.3	33
10	Discovering differential activation machinery of the Toll-like receptor 4 signaling pathways in MyD88 knockouts. FEBS Letters, 2006, 580, 1457-1464.	1.3	30
11	Is central dogma a global property of cellular information flow?. Frontiers in Physiology, 2012, 3, 439.	1.3	28
12	A systems biology approach to suppress TNF-induced proinflammatory gene expressions. Cell Communication and Signaling, 2013, 11, 84.	2.7	28
13	Enhancing apoptosis in TRAIL-resistant cancer cells using fundamental response rules. Scientific Reports, 2011, 1, 144.	1.6	26
14	Predicting Novel Features of Toll-Like Receptor 3 Signaling in Macrophages. PLoS ONE, 2009, 4, e4661.	1.1	25
15	Macroscopic law of conservation revealed in the population dynamics of Toll-like receptor signaling. Cell Communication and Signaling, 2011, 9, 9.	2.7	24
16	Understanding multimodal biological decisions from single cell and population dynamics. Wiley Interdisciplinary Reviews: Systems Biology and Medicine, 2012, 4, 385-399.	6.6	24
17	A systems biology approach to overcome TRAIL resistance in cancer treatment. Progress in Biophysics and Molecular Biology, 2017, 128, 142-154.	1.4	24
18	Collective Dynamics of Specific Gene Ensembles Crucial for Neutrophil Differentiation: The Existence of Genome Vehicles Revealed. PLoS ONE, 2010, 5, e12116.	1.1	23

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19	CAN COMPLEX CELLULAR PROCESSES BE GOVERNED BY SIMPLE LINEAR RULES?. Journal of Bioinformatics and Computational Biology, 2009, 07, 243-268.	0.3	20
20	Tracking global gene expression responses in T cell differentiation. Gene, 2015, 569, 259-266.	1.0	20
21	Systems Biology Strategy Reveals PKCÃŽÂ´ is Key for Sensitizing TRAIL-Resistant Human Fibrosarcoma. Frontiers in Immunology, 2015, 5, 659.	2.2	12
22	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
23	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
24	Physical Laws Shape Biology. Science, 2013, 339, 646-646.	6.0	11
25	Complexity of Biochemical and Genetic Responses Reduced Using Simple Theoretical Models. Methods in Molecular Biology, 2018, 1702, 171-201.	0.4	10
26	Parameter-less approaches for interpreting dynamic cellular response. Journal of Biological Engineering, 2014, 8, 23.	2.0	8
27	Order Parameter in Bacterial Biofilm Adaptive Response. Frontiers in Microbiology, 2018, 9, 1721.	1.5	8
28	Finding Self-organization from the Dynamic Gene Expressions of Innate Immune Responses. Frontiers in Physiology, 2012, 3, 192.	1.3	7
29	ABioTrans: A Biostatistical Tool for Transcriptomics Analysis. Frontiers in Genetics, 2019, 10, 499.	1.1	7
30	Defining rules for cancer cell proliferation in TRAIL stimulation. Npj Systems Biology and Applications, 2019, 5, 5.	1.4	7
31	Longâ€range order and shortâ€range disorder in <i>Saccharomyces cerevisiae</i> biofilm. Engineering Biology, 2019, 3, 12-19.	0.8	7
32	Sequential Logic Model Deciphers Dynamic Transcriptional Control of Gene Expressions. PLoS ONE, 2007, 2, e776.	1.1	7
33	ScatLay: utilizing transcriptome-wide noise for identifying and visualizing differentially expressed genes. Scientific Reports, 2020, 10, 17483.	1.6	6
34	Identifying toggle genes from transcriptome-wide scatter: A new perspective for biological regulation. Genomics, 2022, 114, 215-228.	1.3	6
35	Systems Biology to Understand and Regulate Human Retroviral Proinflammatory Response. Frontiers in Immunology, 2021, 12, 736349.	2.2	5
36	Uncertainty and certainty in cellular dynamics. Frontiers in Genetics, 2013, 4, 68.	1.1	4

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37	Can the second law of thermodynamics hold in cell cultures?. Frontiers in Genetics, 2015, 6, 262.	1.1	4
38	The need for integrated systems biology approaches for biotechnological applications. Biotechnology Notes, 2021, 2, 39-43.	0.7	4
39	Systematic Determination of Biological Network Topology: Nonintegral Connectivity Method (NICM). , 2007, , 449-471.		4
40	Largeâ€scaleâ€free network organisation is likely key for biofilm phase transition. Engineering Biology, 2019, 3, 67-71.	0.8	4
41	GeneCloudOmics: A Data Analytic Cloud Platform for High-Throughput Gene Expression Analysis. Frontiers in Bioinformatics, 2021, 1, .	1.0	4
42	Non-genetic adaptive dynamics for cellular robustness. Frontiers in Genetics, 2013, 4, 287.	1.1	3
43	Searching for simple rules in Pseudomonas aeruginosa biofilm formation. BMC Research Notes, 2019, 12, 763.	0.6	3
44	Measuring merit: Take the risk. Science, 2015, 347, 139-140.	6.0	2
45	In Silico Models for Metabolic Systems Engineering. , 2009, , .		1
46	Emergence of macroscopic simplicity from the Tumor Necrosis Factor-alpha signaling dynamics. Nature Precedings, 2011, , .	0.1	1
47	The Recognition of Chaos in Hostâ€"Pathogen Response. Frontiers in Physiology, 2012, 3, 7.	1.3	1
48	Advances in systems immunology and cancer. Frontiers in Physiology, 2014, 5, 249.	1.3	1
49	Hints from Information Theory for Analyzing Dynamic and High-Dimensional Biological Data. RNA Technologies, 2018, , 313-336.	0.2	1
50	Searching for unifying laws of general adaptation syndrome. Physics of Life Reviews, 2021, 37, 97-99.	1.5	1
51	Signaling Flux Redistribution concept can switch survival to apoptosis in cancer cells. Nature Precedings, 2010, , .	0.1	0
52	Genetic vehicle comprising majority of lowly expressed genes guides cell fate decision. Nature Precedings, 2010, , .	0.1	0
53	Investigation of stochasticity in TRAIL signaling cancer model. , 2012, , .		0
54	Basics of the Mammalian Immune System. Systems Biology, 2013, , 25-33.	0.1	0

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55	Stochasticity and Variability: Insights from Single-Cell Dynamics. Systems Biology, 2013, , 105-116.	0.1	0
56	Systems Biology of Population Cell Response. Systems Biology, 2013, , 1-11.	0.1	0
57	Investigating the TLR3 Signaling Dynamics. Systems Biology, 2013, , 65-74.	0.1	0
58	Inferring Novel Features of the TLR4 Pathways. Systems Biology, 2013, , 35-52.	0.1	0
59	Investigating Single-Cell Stochasticity in TRAIL Signaling. Systems Biology, 2013, , 117-124.	0.1	0
60	Finding Chaos in Biology. Systems Biology, 2013, , 131-140.	0.1	0
61	Systems Biology Approaches for Understanding Biofilm Response. ACS Symposium Series, 2020, , 9-29.	0.5	0