

Alexei Vazquez

List of Publications by Year in descending order

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Version: 2024-02-01

89
papers

10,546
citations

81900

39
h-index

54911

84
g-index

102
all docs

102
docs citations

102
times ranked

14550
citing authors

#	ARTICLE	IF	CITATIONS
1	Mitochondria preserve an autarkic one-carbon cycle to confer growth-independent cancer cell migration and metastasis. <i>Nature Communications</i> , 2022, 13, 2699.	12.8	20
2	Tropical approximation to finish time of activity networks. <i>Physical Review E</i> , 2022, 106, .	2.1	0
3	Trends in Phase II Trials for Cancer Therapies. <i>Cancers</i> , 2021, 13, 178.	3.7	4
4	Zero forcing number of graphs with a power law degree distribution. <i>Physical Review E</i> , 2021, 103, 022301.	2.1	0
5	Transition to multitype mixing in d -dimensional spreading dynamics. <i>Physical Review E</i> , 2021, 103, 022309.	2.1	1
6	Folate metabolism: a re-emerging therapeutic target in haematological cancers. <i>Leukemia</i> , 2021, 35, 1539-1551.	7.2	38
7	Multitype branching and graph product theory of infectious disease outbreaks. <i>Physical Review E</i> , 2021, 103, L030301.	2.1	5
8	Exact solution of infection dynamics with gamma distribution of generation intervals. <i>Physical Review E</i> , 2021, 103, 042306.	2.1	11
9	Immune-regulated IDO1-dependent tryptophan metabolism is source of one-carbon units for pancreatic cancer and stellate cells. <i>Molecular Cell</i> , 2021, 81, 2290-2302.e7.	9.7	54
10	Metformin Is a Pyridoxal-5 \hat{a} ² -phosphate (PLP)-Competitive Inhibitor of SHMT2. <i>Cancers</i> , 2021, 13, 4009.	3.7	15
11	Inhibition of Folate Metabolism Drives Autophagy-Dependent Differentiation and Reduces Survival of Therapy-Resistant Leukaemic Stem Cells. <i>Blood</i> , 2021, 138, 2543-2543.	1.4	0
12	Formate metabolism in health and disease. <i>Molecular Metabolism</i> , 2020, 33, 23-37.	6.5	112
13	Targeting the Metabolic Response to Statin-Mediated Oxidative Stress Produces a Synergistic Antitumor Response. <i>Cancer Research</i> , 2020, 80, 175-188.	0.9	83
14	The conversion of formate into purines stimulates mTORC1 leading to CAD-dependent activation of pyrimidine synthesis. <i>Cancer & Metabolism</i> , 2020, 8, 20.	5.0	7
15	Metabolite AutoPlotter - an application to process and visualise metabolite data in the web browser. <i>Cancer & Metabolism</i> , 2020, 8, 15.	5.0	22
16	Amino acid dependent formaldehyde metabolism in mammals. <i>Communications Chemistry</i> , 2020, 3, .	4.5	17
17	Identification of putative calorie restriction mimetics using mammalian gene expression profiles. <i>Open Biology</i> , 2020, 10, 200158.	3.6	0
18	Superspreaders and lockdown timing explain the power-law dynamics of COVID-19. <i>Physical Review E</i> , 2020, 102, 040302.	2.1	13

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19	Impact of Formate Supplementation on Body Weight and Plasma Amino Acids. <i>Nutrients</i> , 2020, 12, 2181.	4.1	3
20	Formate induces a metabolic switch in nucleotide and energy metabolism. <i>Cell Death and Disease</i> , 2020, 11, 310.	6.3	31
21	Cell population heterogeneity driven by stochastic partition and growth optimality. <i>Scientific Reports</i> , 2019, 9, 9406.	3.3	12
22	Stratification of cancer and diabetes based on circulating levels of formate and glucose. <i>Cancer & Metabolism</i> , 2019, 7, 3.	5.0	23
23	Increased formate overflow is a hallmark of oxidative cancer. <i>Nature Communications</i> , 2018, 9, 1368.	12.8	90
24	Analysis of cell proliferation and tissue remodelling uncovers a KLF4 activity score associated with poor prognosis in colorectal cancer. <i>British Journal of Cancer</i> , 2018, 119, 855-863.	6.4	11
25	A physical model of cell metabolism. <i>Scientific Reports</i> , 2018, 8, 8349.	3.3	17
26	Limits of aerobic metabolism in cancer cells. <i>Scientific Reports</i> , 2017, 7, 13488.	3.3	60
27	Mammals divert endogenous genotoxic formaldehyde into one-carbon metabolism. <i>Nature</i> , 2017, 548, 549-554.	27.8	246
28	DJ1 at the interface between neuro-degeneration and cancer. <i>Oncotarget</i> , 2017, 8, 9015-9016.	1.8	1
29	Riluzole exerts distinct antitumor effects from a metabotropic glutamate receptor 1-specific inhibitor on breast cancer cells. <i>Oncotarget</i> , 2017, 8, 44639-44653.	1.8	20
30	Clinical Actionability of Comprehensive Genomic Profiling for Management of Rare or Refractory Cancers. <i>Oncologist</i> , 2016, 21, 1315-1325.	3.7	64
31	Cancer metabolism at a glance. <i>Journal of Cell Science</i> , 2016, 129, 3367-3373.	2.0	176
32	Serine one-carbon catabolism with formate overflow. <i>Science Advances</i> , 2016, 2, e1601273.	10.3	128
33	Give it or take it: the flux of one-carbon in cancer cells. <i>FEBS Journal</i> , 2016, 283, 3695-3704.	4.7	34
34	A roadmap for interpreting ¹³ C metabolite labeling patterns from cells. <i>Current Opinion in Biotechnology</i> , 2015, 34, 189-201.	6.6	513
35	Mitochondrial Methylenetetrahydrofolate Dehydrogenase (MTHFD2) Overexpression Is Associated with Tumor Cell Proliferation and Is a Novel Target for Drug Development. <i>Molecular Cancer Research</i> , 2015, 13, 1361-1366.	3.4	67
36	Quantification of folate metabolism using transient metabolic flux analysis. <i>Cancer & Metabolism</i> , 2015, 3, 6.	5.0	20

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37	Pyruvate carboxylation enables growth of SDH-deficient cells by supporting aspartate biosynthesis. <i>Nature Cell Biology</i> , 2015, 17, 1317-1326.	10.3	226
38	Autophagy regulator BECN1 suppresses mammary tumorigenesis driven by WNT1 activation and following parity. <i>Autophagy</i> , 2014, 10, 2036-2052.	9.1	126
39	ERBB2 overexpression suppresses stress-induced autophagy and renders ERBB2-induced mammary tumorigenesis independent of monoallelic <i>Becn1</i> loss. <i>Autophagy</i> , 2014, 10, 662-676.	9.1	36
40	Small molecule compounds targeting the p53 pathway: are we finally making progress?. <i>Apoptosis: an International Journal on Programmed Cell Death</i> , 2014, 19, 1055-1068.	4.9	60
41	Inference of synergy/antagonism between anticancer drugs from the pooled analysis of clinical trials. <i>BMC Medical Research Methodology</i> , 2013, 13, 77.	3.1	8
42	Optimization of personalized therapies for anticancer treatment. <i>BMC Systems Biology</i> , 2013, 7, 31.	3.0	17
43	Overexpression of the Mitochondrial Folate and Glycine-Serine Pathway: A New Determinant of Methotrexate Selectivity in Tumors. <i>Cancer Research</i> , 2013, 73, 478-482.	0.9	69
44	The metabolic demands of cancer cells are coupled to their size and protein synthesis rates. <i>Cancer & Metabolism</i> , 2013, 1, 20.	5.0	142
45	Metabolic States Following Accumulation of Intracellular Aggregates: Implications for Neurodegenerative Diseases. <i>PLoS ONE</i> , 2013, 8, e63822.	2.5	23
46	Metabotropic Glutamate Receptor 1 Expression and Its Polymorphic Variants Associate with Breast Cancer Phenotypes. <i>PLoS ONE</i> , 2013, 8, e69851.	2.5	22
47	Allele-Specific p53 Mutant Reactivation. <i>Cancer Cell</i> , 2012, 21, 614-625.	16.8	281
48	Polymorphic variants in TSC1 and TSC2 and their association with breast cancer phenotypes. <i>Breast Cancer Research and Treatment</i> , 2011, 125, 861-868.	2.5	26
49	A genetic variant in a PP2A regulatory subunit encoded by the <i>PPP2R2B</i> gene associates with altered breast cancer risk and recurrence. <i>International Journal of Cancer</i> , 2011, 128, 2335-2343.	5.1	22
50	Molecular classification of prostate cancer using curated expression signatures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 21276-21281.	7.1	171
51	Molecular Crowding Defines a Common Origin for the Warburg Effect in Proliferating Cells and the Lactate Threshold in Muscle Physiology. <i>PLoS ONE</i> , 2011, 6, e19538.	2.5	53
52	Serine Biosynthesis with One Carbon Catabolism and the Glycine Cleavage System Represents a Novel Pathway for ATP Generation. <i>PLoS ONE</i> , 2011, 6, e25881.	2.5	74
53	Catabolic efficiency of aerobic glycolysis: The Warburg effect revisited. <i>BMC Systems Biology</i> , 2010, 4, 58.	3.0	255
54	Optimal cytoplasmatic density and flux balance model under macromolecular crowding effects. <i>Journal of Theoretical Biology</i> , 2010, 264, 356-359.	1.7	36

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55	Higher order Boolean networks as models of cell state dynamics. <i>Journal of Theoretical Biology</i> , 2010, 264, 945-951.	1.7	5
56	Chemosensitivity Profiles Identify Polymorphisms in the p53 Network Genes 14-3-3 σ , and CD44 That Affect Sarcoma Incidence and Survival. <i>Cancer Research</i> , 2010, 70, 172-180.	0.9	45
57	Finding hypergraph communities: a Bayesian approach and variational solution. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P07006.	2.3	17
58	A polymorphic variant in human MDM4 associates with accelerated age of onset of estrogen receptor negative breast cancer. <i>Carcinogenesis</i> , 2009, 30, 1910-1915.	2.8	35
59	Recent Natural Selection Identifies a Genetic Variant in a Regulatory Subunit of Protein Phosphatase 2A that Associates with Altered Cancer Risk and Survival. <i>Clinical Cancer Research</i> , 2009, 15, 6301-6308.	7.0	23
60	Optimal drug combinations and minimal hitting sets. <i>BMC Systems Biology</i> , 2009, 3, 81.	3.0	41
61	An empirical framework for binary interactome mapping. <i>Nature Methods</i> , 2009, 6, 83-90.	19.0	800
62	The genetics of the p53 pathway, apoptosis and cancer therapy. <i>Nature Reviews Drug Discovery</i> , 2008, 7, 979-987.	46.4	568
63	Impact of the solvent capacity constraint on E. coli metabolism. <i>BMC Systems Biology</i> , 2008, 2, 7.	3.0	106
64	High-Quality Binary Protein Interaction Map of the Yeast Interactome Network. <i>Science</i> , 2008, 322, 104-110.	12.6	1,297
65	Impact of Limited Solvent Capacity on Metabolic Rate, Enzyme Activities, and Metabolite Concentrations of <i>S. cerevisiae</i> Glycolysis. <i>PLoS Computational Biology</i> , 2008, 4, e1000195.	3.2	18
66	SCALE-FREE NETWORKS IN BIOLOGY. <i>Complex Systems and Interdisciplinary Science</i> , 2007, , 1-19.	0.2	6
67	Epstein's Barr virus and virus human protein interaction maps. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 7606-7611.	7.1	348
68	Impact of Non-Poissonian Activity Patterns on Spreading Processes. <i>Physical Review Letters</i> , 2007, 98, 158702.	7.8	284
69	Impact of memory on human dynamics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 373, 747-752.	2.6	99
70	Epidemic outbreaks on structured populations. <i>Journal of Theoretical Biology</i> , 2007, 245, 125-129.	1.7	38
71	Sampling of Networks with Traceroute-Like Probes. <i>Complexus</i> , 2006, 3, 83-96.	0.6	0
72	Spreading dynamics on heterogeneous populations: Multitype network approach. <i>Physical Review E</i> , 2006, 74, 066114.	2.1	45

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73	Spreading dynamics on small-world networks with connectivity fluctuations and correlations. <i>Physical Review E</i> , 2006, 74, 056101.	2.1	31
74	Polynomial Growth in Branching Processes with Diverging Reproductive Number. <i>Physical Review Letters</i> , 2006, 96, 038702.	7.8	98
75	Inhomogeneous evolution of subgraphs and cycles in complex networks. <i>Physical Review E</i> , 2005, 71, 025103.	2.1	21
76	Exact Results for the Barabási Model of Human Dynamics. <i>Physical Review Letters</i> , 2005, 95, 248701.	7.8	123
77	Global protein function prediction from protein-protein interaction networks. <i>Nature Biotechnology</i> , 2003, 21, 697-700.	17.5	611
78	Resilience to damage of graphs with degree correlations. <i>Physical Review E</i> , 2003, 67, 015101.	2.1	184
79	Growing network with local rules: Preferential attachment, clustering hierarchy, and degree correlations. <i>Physical Review E</i> , 2003, 67, 056104.	2.1	430
80	Topology and correlations in structured scale-free networks. <i>Physical Review E</i> , 2003, 67, 046111.	2.1	70
81	Computational complexity arising from degree correlations in networks. <i>Physical Review E</i> , 2003, 67, 027101.	2.1	50
82	Modeling of Protein Interaction Networks. <i>Complexus</i> , 2003, 1, 38-44.	0.6	392
83	Dynamical and Correlation Properties of the Internet. <i>Physical Review Letters</i> , 2001, 87, 258701.	7.8	1,130
84	Self-organization in populations of competing agents. <i>Physical Review E</i> , 2000, 62, R4497-R4500.	2.1	7
85	Universality classes in the random-storage sandpile model. <i>Physical Review E</i> , 2000, 61, 944-947.	2.1	3
86	Nonconservative Abelian sandpile model with the Bak-Tang-Wiesenfeld toppling rule. <i>Physical Review E</i> , 2000, 62, 7797-7801.	2.1	3
87	Dynamics of a Domain Wall in Soft-Magnetic Materials: Barkhausen Effect and Relation with Sandpile Models. <i>Physical Review Letters</i> , 2000, 84, 1316-1319.	7.8	19
88	Bethe lattice representation for sandpiles. <i>Physical Review E</i> , 1999, 59, 6956-6961.	2.1	1
89	Diffusion regimes in Lévy flights with trapping. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999, 264, 424-431.	2.6	15