Xionglei He

List of Publications by Year in descending order

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45 papers	2,731 citations	430874 18 h-index	243625 44 g-index
55 all docs	55 docs citations	55 times ranked	4227 citing authors

#	Article	IF	Citations
1	Why Do Hubs Tend to Be Essential in Protein Networks?. PLoS Genetics, 2006, 2, e88.	3.5	634
2	Rapid Subfunctionalization Accompanied by Prolonged and Substantial Neofunctionalization in Duplicate Gene Evolution. Genetics, 2005, 169, 1157-1164.	2.9	598
3	Toward a Molecular Understanding of Pleiotropy. Genetics, 2006, 173, 1885-1891.	2.9	182
4	Prevalent positive epistasis in Escherichia coli and Saccharomyces cerevisiae metabolic networks. Nature Genetics, 2010, 42, 272-276.	21.4	134
5	Significant Impact of Protein Dispensability on the Instantaneous Rate of Protein Evolution. Molecular Biology and Evolution, 2005, 22, 1147-1155.	8.9	114
6	The reverse evolution from multicellularity to unicellularity during carcinogenesis. Nature Communications, 2015, 6, 6367.	12.8	110
7	A hMTR4â€PDIA3P1â€miRâ€125/124â€TRAF6 Regulatory Axis and Its Function in NF kappa B Signaling and Chemoresistance. Hepatology, 2020, 71, 1660-1677.	7.3	103
8	Gene Complexity and Gene Duplicability. Current Biology, 2005, 15, 1016-1021.	3.9	90
9	Nucleosomes Suppress Spontaneous Mutations Base-Specifically in Eukaryotes. Science, 2012, 335, 1235-1238.	12.6	90
10	Higher Duplicability of Less Important Genes in Yeast Genomes. Molecular Biology and Evolution, 2006, 23, 144-151.	8.9	83
11	The Convergent Cancer Evolution toward a Single Cellular Destination. Molecular Biology and Evolution, 2016, 33, 4-12.	8.9	61
12	Measuring the evolutionary rate of proteinâ€“protein interaction. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8725-8730.	7.1	50
13	He et al. reply. Nature Genetics, 2011, 43, 1171-1172.	21.4	45
14	The nonessentiality of essential genes in yeast provides therapeutic insights into a human disease. Genome Research, 2016, 26, 1355-1362.	5.5	38
15	On the low reproducibility of cancer studies. National Science Review, 2018, 5, 619-624.	9.5	38
16	Biosynthetic energy cost for amino acids decreases in cancer evolution. Nature Communications, 2018, 9, 4124.	12.8	27
17	On the founder effect in COVID-19 outbreaks: how many infected travelers may have started them all?. National Science Review, 2021, 8, nwaa246.	9.5	27
18	Reduced intrinsic DNA curvature leads to increased mutation rate. Genome Biology, 2018, 19, 132.	8.8	23

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19	Reassessing the â€œDuonâ€•Hypothesis of Protein Evolution. Molecular Biology and Evolution, 2015, 32, 1056-1062.	8.9	22
20	The twin-beginnings of COVID-19 in Asia and Europeâ€”one prevails quickly. National Science Review, 2022, 9, nwab223.	9.5	22
21	Transcriptional Reprogramming and Backup Between Duplicate Genes: Is It a Genomewide Phenomenon?. Genetics, 2006, 172, 1363-1367.	2.9	20
22	Mapping single-cell-resolution cell phylogeny reveals cell population dynamics during organ development. Nature Methods, 2021, 18, 1506-1514.	19.0	20
23	A theoretical exploration of the origin and early evolution of a pandemic. Science Bulletin, 2021, 66, 1022-1029.	9.0	18
24	The Genotypeâ€“Phenotype Relationships in the Light of Natural Selection. Molecular Biology and Evolution, 2018, 35, 525-542.	8.9	16
25	Peroxiredoxin alleviates the fitness costs of imidacloprid resistance in an insect pest of rice. PLoS Biology, 2021, 19, e3001190.	5.6	15
26	Mutation signatures inform the natural host of SARS-CoV-2. National Science Review, 2022, 9, nwab220.	9.5	15
27	The Runaway Evolution of SARS-CoV-2 Leading to the Highly Evolved Delta Strain. Molecular Biology and Evolution, 2022, 39, .	8.9	14
28	Genetic Incompatibility Dampens Hybrid Fertility More Than Hybrid Viability: Yeast as a Case Study. PLoS ONE, 2011, 6, e18341.	2.5	13
29	Toward a prospective molecular evolution. Science, 2016, 352, 769-770.	12.6	11
30	Assessing the Influence of Dietary History on Gut Microbiota. Current Microbiology, 2019, 76, 237-247.	2.2	10
31	Human A-to-I RNA editing SNP loci are enriched in GWAS signals for autoimmune diseases and under balancing selection. Genome Biology, 2020, 21, 288.	8.8	10
32	On the Growth of Scientific Knowledge: Yeast Biology as a Case Study. PLoS Computational Biology, 2009, 5, e1000320.	3.2	8
33	Defining endogenous barcoding sites for CRISPR/Cas9-based cell lineage tracing in zebrafish. Journal of Genetics and Genomics, 2020, 47, 85-91.	3.9	8
34	Drivers of Mating Type Composition inTetrahymena thermophila. Genome Biology and Evolution, 2020, 12, 2328-2343.	2.5	8
35	Thed_J/d_SRatio Test Reveals Hundreds of Novel Putative Cancer Drivers. Molecular Biology and Evolution, 2015, 32, 2181-2185.	8.9	7
36	The Biology Complicated by Genetic Analysis. Molecular Biology and Evolution, 2016, 33, 2177-2181.	8.9	7

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37	The evolution of sex chromosome dosage compensation in animals. Journal of Genetics and Genomics, 2020, 47, 681-693.	3.9	7
38	An instantaneous coalescent method insensitive to population structure. Journal of Genetics and Genomics, 2021, 48, 219-224.	3.9	5
39	Lineage analysis by microsatellite loci deep sequencing in mice. Molecular Reproduction and Development, 2016, 83, 387-391.	2.0	4
40	The Origin of Additive Genetic Variance Driven by Positive Selection. Molecular Biology and Evolution, 2020, 37, 2300-2308.	8.9	3
41	Mutation Bias, rather than Binding Preference, Underlies the Nucleosome-Associated G+C% Variation in Eukaryotes. Genome Biology and Evolution, 2015, 7, 1033-1038.	2.5	2
42	Decoupling gene functions from knockout effects by evolutionary analyses. National Science Review, 2020, 7, 1169-1180.	9.5	2
43	Rapid Intraspecies Evolution of Fitness Effects of Yeast Genes. Genome Biology and Evolution, 2022, 14, .	2.5	2
44	A Simple Strategy for Reducing False Negatives in Calling Variants from Single-Cell Sequencing Data. PLoS ONE, 2015, 10, e0123789.	2.5	1
45	The expression tractability of biological traits shaped by natural selection. Journal of Genetics and Genomics, 2019, 46, 397-404.	3.9	0