

Nathan L Clark

List of Publications by Year in descending order

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Version: 2024-02-01

46
papers

2,515
citations

257450

24
h-index

243625

44
g-index

67
all docs

67
docs citations

67
times ranked

2795
citing authors

#	ARTICLE	IF	CITATIONS
1	Activation by cleavage of the epithelial Na ⁺ channel $\hat{\alpha}$ and $\hat{\beta}$ subunits independently coevolved with the vertebrate terrestrial migration. <i>ELife</i> , 2022, 11, .	6.0	5
2	Multiple 9-1-1 complexes promote homolog synapsis, DSB repair, and ATR signaling during mammalian meiosis. <i>ELife</i> , 2022, 11, .	6.0	7
3	Phylogenetic Permutations: A Statistically Rigorous Approach to Measure Confidence in Associations in a Phylogenetic Context. <i>Molecular Biology and Evolution</i> , 2021, 38, 3004-3021.	8.9	16
4	Experimental exchange of paralogous domains in the MLH family provides evidence of sub-functionalization after gene duplication. <i>G3: Genes, Genomes, Genetics</i> , 2021, 11, .	1.8	2
5	$\hat{\alpha}$ Arrestin regulation of protein trafficking: Using evolutionary rate covariation to define protein trafficking regulatory networks. <i>FASEB Journal</i> , 2021, 35, .	0.5	0
6	Evolutionary, proteomic, and experimental investigations suggest the extracellular matrix of cumulus cells mediates fertilization outcomes. <i>Biology of Reproduction</i> , 2021, 105, 1043-1055.	2.7	7
7	Evolutionary rate covariation identifies SLC30A9 (ZnT9) as a mitochondrial zinc transporter. <i>Biochemical Journal</i> , 2021, 478, 3205-3220.	3.7	17
8	MCM8IP activates the MCM8-9 helicase to promote DNA synthesis and homologous recombination upon DNA damage. <i>Nature Communications</i> , 2020, 11, 2948.	12.8	28
9	Pan-mammalian analysis of molecular constraints underlying extended lifespan. <i>ELife</i> , 2020, 9, .	6.0	57
10	A <i>Drosophila</i> screen identifies NKCC1 as a modifier of NGLY1 deficiency. <i>ELife</i> , 2020, 9, .	6.0	28
11	Characterization of Female Reproductive Proteases in a Butterfly from Functional and Evolutionary Perspectives. <i>Physiological and Biochemical Zoology</i> , 2019, 92, 579-590.	1.5	11
12	Evolution-based screening enables genome-wide prioritization and discovery of DNA repair genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19593-19599.	7.1	22
13	RERconverge: an R package for associating evolutionary rates with convergent traits. <i>Bioinformatics</i> , 2019, 35, 4815-4817.	4.1	72
14	Convergent evolution in the genomics era: new insights and directions. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20190102.	4.0	78
15	Unprecedented reorganization of holocentric chromosomes provides insights into the enigma of lepidopteran chromosome evolution. <i>Science Advances</i> , 2019, 5, eaau3648.	10.3	66
16	Robust Method for Detecting Convergent Shifts in Evolutionary Rates. <i>Molecular Biology and Evolution</i> , 2019, 36, 1817-1830.	8.9	32
17	Evolutionary rate covariation analysis of E-cadherin identifies Raskol as a regulator of cell adhesion and actin dynamics in <i>Drosophila</i> . <i>PLoS Genetics</i> , 2019, 15, e1007720.	3.5	30
18	The molecular genetic basis of herbivory between butterflies and their host plants. <i>Nature Ecology and Evolution</i> , 2018, 2, 1418-1427.	7.8	56

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19	Ancient convergent losses of <i>Paraoxonase 1</i> yield potential risks for modern marine mammals. <i>Science</i> , 2018, 361, 591-594.	12.6	79
20	Cleavage of ENaC α and β Subunits Evolved with the Terrestrial Migration. <i>FASEB Journal</i> , 2018, 32, 624-16.	0.5	2
21	Structural complexity and molecular heterogeneity of a butterfly ejaculate reflect a complex history of selection. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E5406-E5413.	7.1	37
22	Subterranean mammals show convergent regression in ocular genes and enhancers, along with adaptation to tunneling. <i>ELife</i> , 2017, 6, .	6.0	138
23	<i>Candida albicans</i> Transcriptional Profiling Within Biliary Fluid From a Patient With Cholangitis, Before and After Antifungal Treatment and Surgical Drainage. <i>Open Forum Infectious Diseases</i> , 2016, 3, ofw120.	0.9	0
24	The Amino Acid Transporter Jhl-21 Coevolves with Glutamate Receptors, Impacts NMJ Physiology and Influences Locomotor Activity in <i>Drosophila</i> Larvae. <i>Scientific Reports</i> , 2016, 6, 19692.	3.3	20
25	The Budding Yeast Ubiquitin Protease Ubp7 Is a Novel Component Involved in S Phase Progression. <i>Journal of Biological Chemistry</i> , 2016, 291, 4442-4452.	3.4	11
26	Hundreds of Genes Experienced Convergent Shifts in Selective Pressure in Marine Mammals. <i>Molecular Biology and Evolution</i> , 2016, 33, 2182-2192.	8.9	171
27	Digestive Organ in the Female Reproductive Tract Borrows Genes from Multiple Organ Systems to Adopt Critical Functions. <i>Molecular Biology and Evolution</i> , 2015, 32, 1567-1580.	8.9	27
28	Dynamic digestive physiology of a female reproductive organ in a polyandrous butterfly. <i>Journal of Experimental Biology</i> , 2015, 218, 1548-1555.	1.7	20
29	Genetic and phenotypic influences on copulatory plug survival in mice. <i>Heredity</i> , 2015, 115, 496-502.	2.6	27
30	ERC analysis: web-based inference of gene function via evolutionary rate covariation. <i>Bioinformatics</i> , 2015, 31, 3835-3837.	4.1	22
31	Evolutionary Signatures amongst Disease Genes Permit Novel Methods for Gene Prioritization and Construction of Informative Gene-Based Networks. <i>PLoS Genetics</i> , 2015, 11, e1004967.	3.5	23
32	Overlapping Patterns of Rapid Evolution in the Nucleic Acid Sensors cGAS and OAS1 Suggest a Common Mechanism of Pathogen Antagonism and Escape. <i>PLoS Genetics</i> , 2015, 11, e1005203.	3.5	82
33	Evolutionary and Functional Analysis of the Invariant SWIM Domain in the Conserved Shu2/SWS1 Protein Family from <i>Saccharomyces cerevisiae</i> to <i>Homo sapiens</i> . <i>Genetics</i> , 2015, 199, 1023-1033.	2.9	33
34	Evolutionary Rate Covariation Identifies New Members of a Protein Network Required for <i>Drosophila melanogaster</i> Female Post-Mating Responses. <i>PLoS Genetics</i> , 2014, 10, e1004108.	3.5	137
35	Evolutionary Rate Covariation in Meiotic Proteins Results from Fluctuating Evolutionary Pressure in Yeasts and Mammals. <i>Genetics</i> , 2013, 193, 529-538.	2.9	34
36	Evolutionary rate covariation reveals shared functionality and coexpression of genes. <i>Genome Research</i> , 2012, 22, 714-720.	5.5	89

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37	Diversity-Enhancing Selection Acts on a Female Reproductive Protease Family in Four Subspecies of <i>Drosophila mojavensis</i> . <i>Genetics</i> , 2011, 187, 865-876.	2.9	14
38	A Novel Method to Detect Proteins Evolving at Correlated Rates: Identifying New Functional Relationships between Coevolving Proteins. <i>Molecular Biology and Evolution</i> , 2010, 27, 1152-1161.	8.9	42
39	Proteomics and Comparative Genomic Investigations Reveal Heterogeneity in Evolutionary Rate of Male Reproductive Proteins in Mice (<i>Mus domesticus</i>). <i>Molecular Biology and Evolution</i> , 2009, 26, 1733-1743.	8.9	93
40	Coevolution of Interacting Fertilization Proteins. <i>PLoS Genetics</i> , 2009, 5, e1000570.	3.5	125
41	Adaptive Evolution in Rodent Seminal Vesicle Secretion Proteins. <i>Molecular Biology and Evolution</i> , 2008, 25, 2301-2310.	8.9	52
42	Duplication and Selection on Abalone Sperm Lysin in an Allopatric Population. <i>Molecular Biology and Evolution</i> , 2007, 24, 2081-2090.	8.9	46
43	Evolution of reproductive proteins from animals and plants. <i>Reproduction</i> , 2006, 131, 11-22.	2.6	319
44	Rapid evolution of reproductive proteins in abalone and <i>Drosophila</i> . <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2006, 361, 261-268.	4.0	112
45	High Genetic Diversity in the Chemoreceptor Superfamily of <i>Caenorhabditis elegans</i> . <i>Genetics</i> , 2005, 169, 1985-1996.	2.9	43
46	Pervasive Adaptive Evolution in Primate Seminal Proteins. <i>PLoS Genetics</i> , 2005, 1, e35.	3.5	155