Richard McCulloch

List of Publications by Year
in descending order

77	4,147	201674	128289
papers	citations	27 h-index	60 g-index

91	91	91	3088
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Genome Sequence of Trypanosoma cruzi , Etiologic Agent of Chagas Disease. Science, 2005, 309, 409-415.	12.6	1,273
2	Antigenic variation in trypanosomes: Enhanced phenotypic variation in a eukaryotic parasite. Advances in Parasitology, 2001, 49, 1-70.	3.2	260
3	Molecular mechanisms underlying the control of antigenic variation in African trypanosomes. Current Opinion in Microbiology, 2010, 13, 700-705.	5.1	130
4	Antigenic variation in the African trypanosome: molecular mechanisms and phenotypic complexity. Cellular Microbiology, 2009, 11, 1724-1734.	2.1	104
5	Sequence homology and microhomology dominate chromosomal double-strand break repair in African trypanosomes. Nucleic Acids Research, 2008, 36, 2608-2618.	14.5	103
6	An update on antigenic variation in African trypanosomes. Trends in Parasitology, 2001, 17, 338-343.	3.3	97
7	Genome-wide Analysis Reveals Extensive Functional Interaction between DNA Replication Initiation and Transcription in the Genome of Trypanosoma brucei. Cell Reports, 2012, 2, 185-197.	6.4	93
8	Trypanosoma brucei BRCA2 acts in antigenic variation and has undergone a recent expansion in BRC repeat number that is important during homologous recombination. Molecular Microbiology, 2008, 68, 1237-1251.	2.5	78
9	Transformation of Monomorphic and Pleomorphic <I>Trypanosoma brucei</I>. , 2004, 262, 053-086.		75
10	Distinct roles for two RAD51-related genes in Trypanosoma brucei antigenic variation. Nucleic Acids Research, 2005, 33, 6906-6919.	14.5	75
11	Two pathways of homologous recombination in Trypanosoma brucei. Molecular Microbiology, 2002, 45, 1687-1700.	2.5	73
12	Ku Is Important for Telomere Maintenance, but Not for Differential Expression of Telomeric VSG Genes, in African Trypanosomes. Journal of Biological Chemistry, 2002, 277, 21269-21277.	3.4	71
13	Telomere exchange can be an important mechanism of Variant Surface Glycoprotein gene switching in Trypanosoma brucei. Molecular and Biochemical Parasitology, 1996, 80, 65-75.	1.1	66
14	DNA Recombination Strategies During Antigenic Variation in the African Trypanosome. Microbiology Spectrum, 2015, 3, MDNA3-0016-2014.	3.0	65
15	Ku Heterodimer-Independent End Joining inTrypanosoma bruceiCell Extracts Relies upon Sequence Microhomology. Eukaryotic Cell, 2007, 6, 1773-1781.	3.4	63
16	The within-host dynamics of African trypanosome infections. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140288.	4.0	61
17	Inactivation of Mre11 Does Not Affect VSG Gene Duplication Mediated by Homologous Recombination in Trypanosoma brucei. Journal of Biological Chemistry, 2002, 277, 26185-26193.	3.4	60
18	Antigenic variation in African trypanosomes: monitoring progress. Trends in Parasitology, 2004, 20, 117-121.	3.3	56

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19	Antigenic variation in A frican trypanosomes: the importance of chromosomal and nuclear context in VSG expression control. Cellular Microbiology, 2013, 15, 1984-1993.	2.1	55
20	Antigenic Variation in Trypanosoma brucei: Joining the DOTs. PLoS Biology, 2008, 6, e185.	5.6	54
21	Mapping replication dynamics in Trypanosoma brucei reveals a link with telomere transcription and antigenic variation. ELife, 2016, 5, .	6.0	51
22	Trypanosoma brucei homologous recombination is dependent on substrate length and homology, though displays a differential dependence on mismatch repair as substrate length decreases. Nucleic Acids Research, 2007, 35, 3478-3493.	14.5	50
23	Identification of ORC1/CDC6-Interacting Factors in Trypanosoma brucei Reveals Critical Features of Origin Recognition Complex Architecture. PLoS ONE, 2012, 7, e32674.	2.5	47
24	Genome-wide mapping reveals single-origin chromosome replication in Leishmania, a eukaryotic microbe. Genome Biology, 2015, 16, 230.	8.8	46
25	Targeting the trypanosome kinetochore with CLK1 protein kinase inhibitors. Nature Microbiology, 2020, 5, 1207-1216.	13.3	45
26	Genome-wide and protein kinase-focused RNAi screens reveal conserved and novel damage response pathways in Trypanosoma brucei. PLoS Pathogens, 2017, 13, e1006477.	4.7	44
27	Single-cell transcriptomic analysis of bloodstream Trypanosoma brucei reconstructs cell cycle progression and developmental quorum sensing. Nature Communications, 2021, 12, 5268.	12.8	42
28	Ribonuclease H1-targeted R-loops in surface antigen gene expression sites can direct trypanosome immune evasion. PLoS Genetics, 2018, 14, e1007729.	3.5	40
29	Mismatch Repair Regulates Homologous Recombination, but Has Little Influence on Antigenic Variation, in Trypanosoma brucei. Journal of Biological Chemistry, 2003, 278, 45182-45188.	3.4	38
30	Nuclear DNA Replication in Trypanosomatids: There Are No Easy Methods for Solving Difficult Problems. Trends in Parasitology, 2017, 33, 858-874.	3.3	35
31	Nuclear DNA replication initiation in kinetoplastid parasites: new insights into an ancient process. Trends in Parasitology, 2014, 30, 27-36.	3.3	32
32	Trypanosoma brucei ribonuclease H2A is an essential R-loop processing enzyme whose loss causes DNA damage during transcription initiation and antigenic variation. Nucleic Acids Research, 2019, 47, 9180-9197.	14.5	32
33	Diverged composition and regulation of theTrypanosoma bruceiorigin recognition complex that mediates DNA replication initiation. Nucleic Acids Research, 2016, 44, 4763-4784.	14.5	31
34	Causes and Effects of Loss of Classical Nonhomologous End Joining Pathway in Parasitic Eukaryotes. MBio, 2019, 10, .	4.1	31
35	Interactions among Trypanosoma brucei RAD51 paralogues in DNA repair and antigenic variation. Molecular Microbiology, 2011, 81, 434-456.	2.5	29
36	Emerging challenges in understanding trypanosome antigenic variation. Emerging Topics in Life Sciences, 2017, 1, 585-592.	2.6	29

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37	Evaluation of mechanisms that may generate DNA lesions triggering antigenic variation in African trypanosomes. PLoS Pathogens, 2018, 14, e1007321.	4.7	29
38	RNAi screening identifies Trypanosoma brucei stress response protein kinases required for survival in the mouse. Scientific Reports, 2017, 7, 6156.	3.3	27
39	Genome-wide mapping reveals conserved and diverged R-loop activities in the unusual genetic landscape of the African trypanosome genome. Nucleic Acids Research, 2018, 46, 11789-11805.	14.5	27
40	Trypanosoma brucei BRCA2 acts in a life cycle-specific genome stability process and dictates BRC repeat number-dependent RAD51 subnuclear dynamics. Nucleic Acids Research, 2013, 41, 943-960.	14.5	26
41	Single molecule analysis of Trypanosoma brucei DNA replication dynamics. Nucleic Acids Research, 2015, 43, 2655-2665.	14.5	26
42	Functional compartmentalization of Rad9 and Hus1 reveals diverse assembly of the 9â€‘1â€‘1 complex components during the DNA damage response in Leishmania. Molecular Microbiology, 2016, 101, 1054-1068.	2.5	26
43	Nucleotide excision repair in <scp>T</scp>rypanosoma brucei: specialization of transcriptionâ€coupled repair due to multigenic transcription. Molecular Microbiology, 2014, 92, 756-776.	2.5	25
44	Application of long read sequencing to determine expressed antigen diversity in Trypanosoma brucei infections. PLoS Neglected Tropical Diseases, 2019, 13, e0007262.	3.0	25
45	Characterization of components of the mismatch repair machinery in Trypanosoma brucei. Molecular Microbiology, 2003, 51, 159-173.	2.5	24
46	Conditional genome engineering reveals canonical and divergent roles for the Hus1 component of the 9â€“1â€“1 complex in the maintenance of the plastic genome ofLeishmania. Nucleic Acids Research, 2018, 46, 11835-11846.	14.5	24
47	Trypanosoma brucei ATR Links DNA Damage Signaling during Antigenic Variation with Regulation of RNA Polymerase I-Transcribed Surface Antigens. Cell Reports, 2020, 30, 836-851.e5.	6.4	24
48	Does DNA replication direct locus-specific recombination during host immune evasion by antigenic variation in the African trypanosome?. Current Genetics, 2017, 63, 441-449.	1.7	23
49	Conditional knockout of RAD51-related genes in Leishmania major reveals a critical role for homologous recombination during genome replication. PLoS Genetics, 2020, 16, e1008828.	3.5	21
50	Hydroxyurea-induced synchronisation of bloodstream stage Trypanosoma brucei. Molecular and Biochemical Parasitology, 2009, 164, 131-136.	1.1	20
51	Distinct Phenotypes Caused by Mutation of MSH2 in Trypanosome Insect and Mammalian Life Cycle Forms Are Associated with Parasite Adaptation to Oxidative Stress. PLoS Neglected Tropical Diseases, 2015, 9, e0003870.	3.0	20
52	Quantitative sequencing confirms VSG diversity as central to immune evasion by Trypanosoma brucei. Trends in Parasitology, 2015, 31, 346-349.	3.3	19
53	Conservation and Variation in Strategies for DNA Replication of Kinetoplastid Nuclear Genomes. Current Genomics, 2018, 19, 98-109.	1.6	19
54	Targeting the Parasite's DNA with Methyltriazenyl Purine Analogs Is a Safe, Selective, and Efficacious Antitrypanosomal Strategy. Antimicrobial Agents and Chemotherapy, 2015, 59, 6708-6716.	3.2	18

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55	Chromosomal copy number variation analysis by next generation sequencing confirms ploidy stability in Trypanosoma brucei subspecies. Microbial Genomics, 2018, 4, .	2.0	18
56	Trypanosoma brucei DMC1 does not act in DNA recombination, repair or antigenic variation in bloodstream stage cells. Molecular and Biochemical Parasitology, 2006, 145, 245-253.	1.1	17
57	Transcription activity contributes to the firing of non-constitutive origins in African trypanosomes helping to maintain robustness in S-phase duration. Scientific Reports, 2019, 9, 18512.	3.3	17
58	Genome duplication in Leishmania major relies on persistent subtelomeric DNA replication. ELife, 2020, 9, .	6.0	17
59	The in vivo and in vitro roles of Trypanosoma cruzi Rad51 in the repair of DNA double strand breaks and oxidative lesions. PLoS Neglected Tropical Diseases, 2018, 12, e0006875.	3.0	14
60	Evaluation of Antigens for Development of a Serological Test for Human African Trypanosomiasis. PLoS ONE, 2016, 11, e0168074.	2.5	12
61	Genome maintenance functions of a putative Trypanosoma brucei translesion DNA polymerase include telomere association and a role in antigenic variation. Nucleic Acids Research, 2020, 48, 9660-9680.	14.5	12
62	A key event in survival. Nature, 2009, 459, 172-173.	27.8	11
63	The MRN complex promotes DNA repair by homologous recombination and restrains antigenic variation in African trypanosomes. Nucleic Acids Research, 2021, 49, 1436-1454.	14.5	11
64	Application of single-cell transcriptomics to kinetoplastid research. Parasitology, 2021, 148, 1223-1236.	1.5	11
65	Replication origin location might contribute to genetic variability in Trypanosoma cruzi. BMC Genomics, 2020, 21, 414.	2.8	10
66	Read, Write, Adapt: Challenges and Opportunities during Kinetoplastid Genome Replication. Trends in Genetics, 2021, 37, 21-34.	6.7	9
67	The DNA damage response is developmentally regulated in the African trypanosome. DNA Repair, 2019, 73, 78-90.	2.8	8
68	The protozoan nucleus. Molecular and Biochemical Parasitology, 2016, 209, 76-87.	1.1	5
69	Trypanosoma brucei and Trypanosoma cruzi DNA Mismatch Repair Proteins Act Differently in the Response to DNA Damage Caused by Oxidative Stress. Frontiers in Cellular and Infection Microbiology, 2020, 10, 154.	3.9	2
70	Unpicking the Roles of DNA Damage Protein Kinases in Trypanosomatids. Frontiers in Cell and Developmental Biology, 2021, 9, 636615.	3.7	2
71	DNA Recombination Strategies During Antigenic Variation in the African Trypanosome. , 0, , 409-435.		2
72	Next-Generation Analysis of Trypanosomatid Genome Stability and Instability. Methods in Molecular Biology, 2020, 2116, 225-262.	0.9	2

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73	Editorial: Nuclear Genome Stability: DNA Replication, Telomere Maintenance, and DNA Repair. Frontiers in Cell and Developmental Biology, 2022, 10, 875749.	3.7	0
74	Title is missing!. , 2020, 16, e1008828.		0
75	Title is missing!. , 2020, 16, e1008828.		0
76	Title is missing!. , 2020, 16, e1008828.		0
77	Title is missing!. , 2020, 16, e1008828.		0