Michael O'Donnell

List of Publications by Year
in descending order

36 papers	2,468 citations	201575 27 h-index	360920 35 g-index
46 all docs	46 docs citations	46 times ranked	2085 citing authors

#	Article	IF	Citations
1	Principles and Concepts of DNA Replication in Bacteria, Archaea, and Eukarya. Cold Spring Harbor Perspectives in Biology, 2013, 5, a010108-a010108.	2.3	262
2	A Sliding-Clamp Toolbelt Binds High- and Low-Fidelity DNA Polymerases Simultaneously. Molecular Cell, 2005, 19, 805-815.	4.5	181
3	Structure of eukaryotic CMG helicase at a replication fork and implications to replisome architecture and origin initiation. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E697-E706.	3.3	176
4	The replisome uses mRNA as a primer after colliding with RNA polymerase. Nature, 2008, 456, 762-766.	13.7	174
5	How a DNA Polymerase Clamp Loader Opens a Sliding Clamp. Science, 2011, 334, 1675-1680.	6.0	155
6	Direct Restart of a Replication Fork Stalled by a Head-On RNA Polymerase. Science, 2010, 327, 590-592.	6.0	147
7	Proteomic and genomic characterization of chromatin complexes at a boundary. Journal of Cell Biology, 2005, 169, 35-47.	2.3	130
8	Replication Fork Activation Is Enabled by a Single-Stranded DNA Gate in CMG Helicase. Cell, 2019, 178, 600-611.e16.	13.5	109
9	Mcm10 promotes rapid isomerization of CMG-DNA for replisome bypass of lagging strand DNA blocks. ELife, 2017, 6, .	2.8	79
10	The ring-shaped hexameric helicases that function at DNA replication forks. Nature Structural and Molecular Biology, 2018, 25, 122-130.	3.6	78
11	Overproduction and analysis of eukaryotic multiprotein complexes in Escherichia coli using a dual-vector strategy. Analytical Biochemistry, 2003, 319, 78-87.	1.1	76
12	Tunability of DNA Polymerase Stability during Eukaryotic DNA Replication. Molecular Cell, 2020, 77, 17-25.e5.	4.5	71
13	DNA polymerase clamp loaders and DNA recognition. FEBS Letters, 2005, 579, 863-867.	1.3	68
14	What happens when replication and transcription complexes collide?. Cell Cycle, 2010, 9, 2537-2543.	1.3	67
15	Single-molecule visualization of <i>Saccharomyces cerevisiae</i> leading-strand synthesis reveals dynamic interaction between MTC and the replisome. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10630-10635.	3.3	57
16	Structure of the polymerase Îµ holoenzyme and atomic model of the leading strand replisome. Nature Communications, 2020, 11, 3156.	5.8	57
17	Quality control mechanisms exclude incorrect polymerases from the eukaryotic replication fork. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 675-680.	3.3	50
18	DNA unwinding mechanism of a eukaryotic replicative CMG helicase. Nature Communications, 2020, 11, 688.	5.8	50

#	ARTICLE	IF	CITATIONS
19	Action of CMG with strand-specific DNA blocks supports an internal unwinding mode for the eukaryotic replicative helicase. ELife, 2017, 6, .	2.8	47
20	Nuclease dead Cas9 is a programmable roadblock for DNA replication. Scientific Reports, 2019, 9, 13292.	1.6	45
21	A proposal: Evolution of PCNA's role as a marker of newly replicated DNA. DNA Repair, 2015, 29, 4-15.	1.3	43
22	Ctf4 organizes sister replisomes and Pol Î± into a replication factory. ELife, 2019, 8, .	2.8	42
23	Structure of eukaryotic DNA polymerase Î´ bound to the PCNA clamp while encircling DNA. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30344-30353.	3.3	41
24	A structural role for the PHP domain in E. coli DNA polymerase III. BMC Structural Biology, 2013, 13, 8.	2.3	40
25	Mcm10 has potent strand-annealing activity and limits translocase-mediated fork regression. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 798-803.	3.3	35
26	Replisome bypass of a protein-based R-loop block by Pif1. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30354-30361.	3.3	35
27	Temporal Correlation of DNA Binding, ATP Hydrolysis, and Clamp Release in the Clamp Loading Reaction Catalyzed by the Escherichia coli Î³ complex. Biochemistry, 2009, 48, 8516-8527.	1.2	34
28	An explanation for origin unwinding in eukaryotes. ELife, 2019, 8, .	2.8	23
29	DNA is loaded through the 9-1-1 DNA checkpoint clamp in the opposite direction of the PCNA clamp. Nature Structural and Molecular Biology, 2022, 29, 376-385.	3.6	19
30	The DNA Replication Machine: Structure and Dynamic Function. Sub-Cellular Biochemistry, 2021, 96, 233-258.	1.0	18
31	Cryo-EM structures reveal that RFC recognizes both the 3â€²- and 5â€²-DNA ends to load PCNA onto gaps for DNA repair. ELife, 0, 11, .	2.8	13
32	In vitro Assays for Eukaryotic Leading/Lagging Strand DNA Replication. Bio-protocol, 2017, 7, .	0.2	10
33	Water skating: How polymerase sliding clamps move on DNA. FEBS Journal, 2021, 288, 7256-7262.	2.2	8
34	CMG helicase can use ATPÎ³S to unwind DNA: Implications for the rate-limiting step in the reaction mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119580119.	3.3	8
35	Polymerase trafficking. Transcription, 2010, 1, 136-139.	1.7	3
36	Getting ready for DNA duplication. ELife, 2019, 8, .	2.8	3