

Aidan J Doherty

List of Publications by Year in descending order

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72
papers

5,363
citations

76294

40
h-index

85498

71
g-index

75
all docs

75
docs citations

75
times ranked

4380
citing authors

#	ARTICLE	IF	CITATIONS
1	EMSY Links the BRCA2 Pathway to Sporadic Breast and Ovarian Cancer. <i>Cell</i> , 2003, 115, 523-535.	13.5	389
2	Identification of a DNA Nonhomologous End-Joining Complex in Bacteria. <i>Science</i> , 2002, 297, 1686-1689.	6.0	284
3	Crystal Structure of an ATP-Dependent DNA Ligase from Bacteriophage T7. <i>Cell</i> , 1996, 85, 607-615.	13.5	261
4	X-Ray Crystallography Reveals a Large Conformational Change during Guanyl Transfer by mRNA Capping Enzymes. <i>Cell</i> , 1997, 89, 545-553.	13.5	260
5	PrimPol Bypasses UV Photoproducts during Eukaryotic Chromosomal DNA Replication. <i>Molecular Cell</i> , 2013, 52, 566-573.	4.5	235
6	Mycobacterial Ku and Ligase Proteins Constitute a Two-Component NHEJ Repair Machine. <i>Science</i> , 2004, 306, 683-685.	6.0	193
7	Making Ends Meet: Repairing Breaks in Bacterial DNA by Non-Homologous End-Joining. <i>PLoS Genetics</i> , 2006, 2, e8.	1.5	166
8	Crystal structure of human 53BP1 BRCT domains bound to p53 tumour suppressor. <i>EMBO Journal</i> , 2002, 21, 3863-3872.	3.5	161
9	Structural and mechanistic conservation in DNA ligases. <i>Nucleic Acids Research</i> , 2000, 28, 4051-4058.	6.5	147
10	PrimPol Is Required for Replicative Tolerance of G Quadruplexes in Vertebrate Cells. <i>Molecular Cell</i> , 2016, 61, 161-169.	4.5	146
11	Nonhomologous End-Joining in Bacteria: A Microbial Perspective. <i>Annual Review of Microbiology</i> , 2007, 61, 259-282.	2.9	140
12	Role of DNA Repair by Nonhomologous-End Joining in <i>Bacillus subtilis</i> Spore Resistance to Extreme Dryness, Mono- and Polychromatic UV, and Ionizing Radiation. <i>Journal of Bacteriology</i> , 2007, 189, 3306-3311.	1.0	139
13	Potential Role for 53BP1 in DNA End-joining Repair through Direct Interaction with DNA. <i>Journal of Biological Chemistry</i> , 2003, 278, 36487-36495.	1.6	133
14	Identification of bacterial homologues of the Ku DNA repair proteins. <i>FEBS Letters</i> , 2001, 500, 186-188.	1.3	124
15	Cellular and Biochemical Impact of a Mutation in DNA Ligase IV Conferring Clinical Radiosensitivity. <i>Journal of Biological Chemistry</i> , 2001, 276, 31124-31132.	1.6	116
16	DNA repair: How Ku makes ends meet. <i>Current Biology</i> , 2001, 11, R920-R924.	1.8	95
17	Molecular dissection of the domain architecture and catalytic activities of human PrimPol. <i>Nucleic Acids Research</i> , 2014, 42, 5830-5845.	6.5	94
18	Human PrimPol is a highly error-prone polymerase regulated by single-stranded DNA binding proteins. <i>Nucleic Acids Research</i> , 2015, 43, 1056-1068.	6.5	93

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19	Repriming by PrimPol is critical for DNA replication restart downstream of lesions and chain-terminating nucleosides. <i>Cell Cycle</i> , 2016, 15, 1997-2008.	1.3	88
20	Molecular basis for PrimPol recruitment to replication forks by RPA. <i>Nature Communications</i> , 2017, 8, 15222.	5.8	82
21	Structure and Function of a Mycobacterial NHEJ DNA Repair Polymerase. <i>Journal of Molecular Biology</i> , 2007, 366, 391-405.	2.0	81
22	NHEJ protects mycobacteria in stationary phase against the harmful effects of desiccation. <i>DNA Repair</i> , 2007, 6, 1271-1276.	1.3	80
23	Primase-polymerases are a functionally diverse superfamily of replication and repair enzymes. <i>Nucleic Acids Research</i> , 2015, 43, 6651-6664.	6.5	79
24	Structure of a NHEJ Polymerase-Mediated DNA Synaptic Complex. <i>Science</i> , 2007, 318, 456-459.	6.0	78
25	R-loop formation during S phase is restricted by PrimPol-mediated repriming. <i>EMBO Journal</i> , 2019, 38, .	3.5	77
26	The Gam protein of bacteriophage Mu is an orthologue of eukaryotic Ku. <i>EMBO Reports</i> , 2003, 4, 47-52.	2.0	76
27	Evolutionary and Functional Conservation of the DNA Non-homologous End-joining Protein, XLF/Cernunnos*. <i>Journal of Biological Chemistry</i> , 2006, 281, 37517-37526.	1.6	74
28	The involvement of tau in nucleolar transcription and the stress response. <i>Acta Neuropathologica Communications</i> , 2018, 6, 70.	2.4	74
29	Ku Stimulation of DNA Ligase IV-dependent Ligation Requires Inward Movement along the DNA Molecule. <i>Journal of Biological Chemistry</i> , 2003, 278, 22466-22474.	1.6	69
30	PrimPol-dependent single-stranded gap formation mediates homologous recombination at bulky DNA adducts. <i>Nature Communications</i> , 2020, 11, 5863.	5.8	69
31	A family of DNA repair ligases in bacteria?. <i>FEBS Letters</i> , 2001, 505, 340-342.	1.3	61
32	PolDIP2 interacts with human PrimPol and enhances its DNA polymerase activities. <i>Nucleic Acids Research</i> , 2016, 44, 3317-3329.	6.5	59
33	PrimPol – Prime Time to Reprime. <i>Genes</i> , 2017, 8, 20.	1.0	56
34	Domain Structure of a NHEJ DNA Repair Ligase from <i>Mycobacterium tuberculosis</i> . <i>Journal of Molecular Biology</i> , 2005, 351, 531-544.	2.0	55
35	The Direct Interaction between 53BP1 and MDC1 Is Required for the Recruitment of 53BP1 to Sites of Damage. <i>Journal of Biological Chemistry</i> , 2009, 284, 426-435.	1.6	55
36	PPL2 Translesion Polymerase Is Essential for the Completion of Chromosomal DNA Replication in the African Trypanosome. <i>Molecular Cell</i> , 2013, 52, 554-565.	4.5	54

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37	DNA Toroids: Framework for DNA Repair in <i>Deinococcus radiodurans</i> and in Germinating Bacterial Spores. <i>Journal of Bacteriology</i> , 2004, 186, 5973-5977.	1.0	50
38	Mycobacteriophage Exploit NHEJ to Facilitate Genome Circularization. <i>Molecular Cell</i> , 2006, 23, 743-748.	4.5	45
39	Ribonucleolytic resection is required for repair of strand displaced nonhomologous end-joining intermediates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E1984-91.	3.3	44
40	Structure of a Preternary Complex Involving a Prokaryotic NHEJ DNA Polymerase. <i>Molecular Cell</i> , 2011, 41, 221-231.	4.5	43
41	PrimPol is required for the maintenance of efficient nuclear and mitochondrial DNA replication in human cells. <i>Nucleic Acids Research</i> , 2019, 47, 4026-4038.	6.5	42
42	Human PrimPol mutation associated with high myopia has a DNA replication defect. <i>Nucleic Acids Research</i> , 2014, 42, 12102-12111.	6.5	39
43	Expression of <i>Mycobacterium tuberculosis</i> Ku and Ligase D in <i>Escherichia coli</i> results in RecA and RecB-independent DNA end-joining at regions of microhomology. <i>DNA Repair</i> , 2007, 6, 1413-1424.	1.3	38
44	New Insights into NHEJ Repair Processes in Prokaryotes. <i>Cell Cycle</i> , 2005, 4, 675-678.	1.3	36
45	Mitochondrial DNA replication: a PrimPol perspective. <i>Biochemical Society Transactions</i> , 2017, 45, 513-529.	1.6	36
46	Mitochondrial genetic variation is enriched in G-quadruplex regions that stall DNA synthesis in vitro. <i>Human Molecular Genetics</i> , 2020, 29, 1292-1309.	1.4	36
47	Repairing DNA double-strand breaks by the prokaryotic non-homologous end-joining pathway. <i>Biochemical Society Transactions</i> , 2009, 37, 539-545.	1.6	35
48	PrimPol – A new polymerase on the block. <i>Molecular and Cellular Oncology</i> , 2014, 1, e960754.	0.3	35
49	Molecular Basis for DNA Double-Strand Break Annealing and Primer Extension by an NHEJ DNA Polymerase. <i>Cell Reports</i> , 2013, 5, 1108-1120.	2.9	31
50	EXD2 governs germ stem cell homeostasis and lifespan by promoting mitoribosome integrity and translation. <i>Nature Cell Biology</i> , 2018, 20, 162-174.	4.6	31
51	Binding of EMSY to HP1 ² : implications for recruitment of HP1 ² and BS69. <i>EMBO Reports</i> , 2005, 6, 675-680.	2.0	29
52	The Involvement of AÎ ²⁴² and Tau in Nucleolar and Protein Synthesis Machinery Dysfunction. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 220.	1.8	29
53	Repriming DNA synthesis: an intrinsic restart pathway that maintains efficient genome replication. <i>Nucleic Acids Research</i> , 2021, 49, 4831-4847.	6.5	28
54	PrimPol-deficient cells exhibit a pronounced G2 checkpoint response following UV damage. <i>Cell Cycle</i> , 2016, 15, 908-918.	1.3	25

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55	DNA Ligase C and Prim-PolC participate in base excision repair in mycobacteria. <i>Nature Communications</i> , 2017, 8, 1251.	5.8	25
56	Crystal Structure of the ENT Domain of Human EMSY. <i>Journal of Molecular Biology</i> , 2005, 350, 964-973.	2.0	24
57	Archaeal replicative primases can perform translesion DNA synthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E633-8.	3.3	24
58	Molecular basis for DNA strand displacement by NHEJ repair polymerases. <i>Nucleic Acids Research</i> , 2016, 44, 2173-2186.	6.5	24
59	Characterization of the roles of the catalytic domains of <i>Mycobacterium tuberculosis</i> ligase D in Ku-dependent error-prone DNA end joining. <i>Mutagenesis</i> , 2010, 25, 473-481.	1.0	22
60	Evaluation of DNA Primase DnaG as a Potential Target for Antibiotics. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 1699-1706.	1.4	20
61	Identification of a novel motif in DNA ligases exemplified by DNA ligase IV. <i>DNA Repair</i> , 2006, 5, 788-798.	1.3	19
62	Cdk1 Restrains NHEJ through Phosphorylation of XRCC4-like Factor Xlf1. <i>Cell Reports</i> , 2014, 9, 2011-2017.	2.9	18
63	PDIP38/PolDIP2 controls the DNA damage tolerance pathways by increasing the relative usage of translesion DNA synthesis over template switching. <i>PLoS ONE</i> , 2019, 14, e0213383.	1.1	15
64	CRISPR-Associated Primase-Polymerases are implicated in prokaryotic CRISPR-Cas adaptation. <i>Nature Communications</i> , 2021, 12, 3690.	5.8	12
65	An archaeal family-B DNA polymerase variant able to replicate past DNA damage: occurrence of replicative and translesion synthesis polymerases within the B family. <i>Nucleic Acids Research</i> , 2014, 42, 9949-9963.	6.5	11
66	Molecular basis for the initiation of DNA primer synthesis. <i>Nature</i> , 2022, 605, 767-773.	13.7	11
67	PLK1 regulates the PrimPol damage tolerance pathway during the cell cycle. <i>Science Advances</i> , 2021, 7, eabh1004.	4.7	10
68	Purification, crystallization and preliminary X-ray analysis of the BRCT domains of human 53BP1 bound to the p53 tumour suppressor. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2002, 58, 1826-1829.	2.5	9
69	Molecular basis for DNA repair synthesis on short gaps by mycobacterial Primase-Polymerase C. <i>Nature Communications</i> , 2020, 11, 4196.	5.8	9
70	Current and Emerging Assays for Studying the Primer Synthesis Activities of DNA Primases. <i>Methods in Enzymology</i> , 2017, 591, 327-353.	0.4	4
71	Author Response: PRIMPOL Mutation: Functional Study Does Not Always Reveal the Truth. <i>Investigative Ophthalmology and Visual Science</i> , 2015, 56, 1183-1183.	3.3	3
72	DNA repair Nonhomologous End-Joining in Bacteria. , 2021, , 289-295.		0