

Alan E Tomkinson

List of Publications by Year in descending order

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79
papers

6,283
citations

87888

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69250

77
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all docs

80
docs citations

80
times ranked

5102
citing authors

#	ARTICLE	IF	CITATIONS
1	Cryo-EM structures and biochemical insights into heterotrimeric PCNA regulation of DNA ligase. <i>Structure</i> , 2022, 30, 371-385.e5.	3.3	5
2	Purification and Characterization of Human DNA Ligase III β Complexes After Expression in Insect Cells. <i>Methods in Molecular Biology</i> , 2022, 2444, 243-269.	0.9	0
3	Ligase 1 is a predictor of platinum resistance and its blockade is synthetically lethal in XRCC1 deficient epithelial ovarian cancers. <i>Theranostics</i> , 2021, 11, 8350-8361.	10.0	10
4	Structural basis of long-range to short-range synaptic transition in NHEJ. <i>Nature</i> , 2021, 593, 294-298.	27.8	89
5	Direct interaction of DNA repair protein tyrosyl DNA phosphodiesterase 1 and the DNA ligase III catalytic domain is regulated by phosphorylation of its flexible N-terminus. <i>Journal of Biological Chemistry</i> , 2021, 297, 100921.	3.4	6
6	An atypical BRCT β -BRCT interaction with the XRCC1 scaffold protein compacts human DNA Ligase III β within a flexible DNA repair complex. <i>Nucleic Acids Research</i> , 2021, 49, 306-321.	14.5	21
7	Altered DNA ligase activity in human disease. <i>Mutagenesis</i> , 2020, 35, 51-60.	2.6	17
8	Human DNA ligases in replication and repair. <i>DNA Repair</i> , 2020, 93, 102908.	2.8	26
9	XRCC1 promotes replication restart, nascent fork degradation and mutagenic DNA repair in BRCA2-deficient cells. <i>NAR Cancer</i> , 2020, 2, zcaa013.	3.1	36
10	Dynamic DNA-bound PCNA complexes co-ordinate Okazaki fragment synthesis, processing and ligation. <i>Journal of Molecular Biology</i> , 2020, 432, 166698.	4.2	11
11	<i>POLD1</i> variants leading to reduced polymerase activity can cause hearing loss without syndromic features. <i>Human Mutation</i> , 2020, 41, 913-920.	2.5	7
12	NAD ⁺ is not utilized as a co-factor for DNA ligation by human DNA ligase IV. <i>Nucleic Acids Research</i> , 2020, 48, 12746-12750.	14.5	2
13	1HN, 13C, and 15N backbone resonance assignments of the human DNA ligase 3 DNA-binding domain (residues 257-477). <i>Biomolecular NMR Assignments</i> , 2019, 13, 305-308.	0.8	1
14	SUMO-ylating the base excision repair machinery for differentiation. <i>EMBO Journal</i> , 2019, 38, .	7.8	0
15	Repair of DNA double-strand breaks by mammalian alternative end-joining pathways. <i>Journal of Biological Chemistry</i> , 2018, 293, 10536-10546.	3.4	174
16	Mutant FUS causes DNA ligation defects to inhibit oxidative damage repair in Amyotrophic Lateral Sclerosis. <i>Nature Communications</i> , 2018, 9, 3683.	12.8	141
17	The SWI/SNF ATP-dependent nucleosome remodeler promotes resection initiation at a DNA double-strand break in yeast. <i>Nucleic Acids Research</i> , 2017, 45, 5887-5900.	14.5	33
18	The Human Ligase III β -XRCC1 Protein Complex Performs DNA Nick Repair after Transient Unwrapping of Nucleosomal DNA. <i>Journal of Biological Chemistry</i> , 2017, 292, 5227-5238.	3.4	29

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19	Structure-activity relationships among DNA ligase inhibitors: Characterization of a selective uncompetitive DNA ligase I inhibitor. <i>DNA Repair</i> , 2017, 60, 29-39.	2.8	17
20	Optimization of Native and Formaldehyde iPOND Techniques for Use in Suspension Cells. <i>Methods in Enzymology</i> , 2017, 591, 1-32.	1.0	8
21	SCR7 is neither a selective nor a potent inhibitor of human DNA ligase IV. <i>DNA Repair</i> , 2016, 43, 18-23.	2.8	57
22	Human DNA Ligase I Interacts with and Is Targeted for Degradation by the DCAF7 Specificity Factor of the Cul4-DDB1 Ubiquitin Ligase Complex. <i>Journal of Biological Chemistry</i> , 2016, 291, 21893-21902.	3.4	17
23	Inhibiting Mitochondrial DNA Ligase III \pm Activates Caspase 1 α Dependent Apoptosis in Cancer Cells. <i>Cancer Research</i> , 2016, 76, 5431-5441.	0.9	20
24	An Intrinsically Disordered APLF Links Ku, DNA-PKcs, and XRCC4-DNA Ligase IV in an Extended Flexible Non-homologous End Joining Complex. <i>Journal of Biological Chemistry</i> , 2016, 291, 26987-27006.	3.4	61
25	Synthesis and structure determination of SCR7, a DNA ligase inhibitor. <i>Tetrahedron Letters</i> , 2016, 57, 3204-3207.	1.4	6
26	Absence of MutS β leads to the formation of slipped-DNA for CTG/CAG contractions at primate replication forks. <i>DNA Repair</i> , 2016, 42, 107-118.	2.8	23
27	Aromatase Inhibitor α Mediated Downregulation of INrf2 (Keap1) Leads to Increased Nrf2 and Resistance in Breast Cancer. <i>Molecular Cancer Therapeutics</i> , 2015, 14, 1728-1737.	4.1	17
28	Human DNA ligase III bridges two DNA ends to promote specific intermolecular DNA end joining. <i>Nucleic Acids Research</i> , 2015, 43, 7021-7031.	14.5	25
29	The C-terminal Domain (CTD) of Human DNA Glycosylase NEIL1 Is Required for Forming BERosome Repair Complex with DNA Replication Proteins at the Replicating Genome. <i>Journal of Biological Chemistry</i> , 2015, 290, 20919-20933.	3.4	41
30	Role of the yeast DNA repair protein Nej1 in end processing during the repair of DNA double strand breaks by non-homologous end joining. <i>DNA Repair</i> , 2015, 31, 1-10.	2.8	16
31	Synergistic enhancement of 5-fluorouracil cytotoxicity by deoxyuridine analogs in cancer cells. <i>Oncoscience</i> , 2015, 2, 272-284.	2.2	1
32	Ubiquitin-specific Peptidase 20 Regulates Rad17 Stability, Checkpoint Kinase 1 Phosphorylation and DNA Repair by Homologous Recombination. <i>Journal of Biological Chemistry</i> , 2014, 289, 22739-22748.	3.4	28
33	Chromosomal Translocations in Human Cells Are Generated by Canonical Nonhomologous End-Joining. <i>Molecular Cell</i> , 2014, 55, 829-842.	9.7	278
34	Structure and function of the DNA ligases encoded by the mammalian LIG3 gene. <i>Gene</i> , 2013, 531, 150-157.	2.2	48
35	DNA ligases as therapeutic targets. <i>Translational Cancer Research</i> , 2013, 2, .	1.0	28
36	Phosphorylation of Serine 51 Regulates the Interaction of Human DNA Ligase I with Replication Factor C and Its Participation in DNA Replication and Repair*. <i>Journal of Biological Chemistry</i> , 2012, 287, 36711-36719.	3.4	12

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37	The Interaction between Polynucleotide Kinase Phosphatase and the DNA Repair Protein XRCC1 Is Critical for Repair of DNA Alkylation Damage and Stable Association at DNA Damage Sites. <i>Journal of Biological Chemistry</i> , 2012, 287, 39233-39244.	3.4	29
38	Targeting Abnormal DNA Repair in Therapy-Resistant Breast Cancers. <i>Molecular Cancer Research</i> , 2012, 10, 96-107.	3.4	80
39	A High-Throughput Scintillation Proximity-Based Assay for Human DNA Ligase IV. <i>Assay and Drug Development Technologies</i> , 2012, 10, 235-249.	1.2	14
40	The Nucleotide Sequence, DNA Damage Location, and Protein Stoichiometry Influence the Base Excision Repair Outcome at CAG/CTG Repeats. <i>Biochemistry</i> , 2012, 51, 3919-3932.	2.5	36
41	DNA Ligase I, the Replicative DNA Ligase. <i>Sub-Cellular Biochemistry</i> , 2012, 62, 327-341.	2.4	48
42	Human Mre11/Human Rad50/Nbs1 and DNA Ligase III α /XRCC1 Protein Complexes Act Together in an Alternative Nonhomologous End Joining Pathway. <i>Journal of Biological Chemistry</i> , 2011, 286, 33845-33853.	3.4	113
43	Yeast Nej1 Is a Key Participant in the Initial End Binding and Final Ligation Steps of Nonhomologous End Joining. <i>Journal of Biological Chemistry</i> , 2011, 286, 4931-4940.	3.4	42
44	Human DNA Ligase III Recognizes DNA Ends by Dynamic Switching between Two DNA-Bound States. <i>Biochemistry</i> , 2010, 49, 6165-6176.	2.5	90
45	Phosphorylation of Human DNA Ligase I Regulates Its Interaction with Replication Factor C and Its Participation in DNA Replication and DNA Repair. <i>Molecular and Cellular Biology</i> , 2009, 29, 2042-2052.	2.3	28
46	CTG/CAG Repeat Instability Is Modulated by the Levels of Human DNA Ligase I and Its Interaction with Proliferating Cell Nuclear Antigen. <i>Journal of Biological Chemistry</i> , 2009, 284, 26631-26645.	3.4	36
47	The DNA binding domain of human DNA ligase I interacts with both nicked DNA and the DNA sliding clamps, PCNA and hRad9-hRad1-hHus1. <i>DNA Repair</i> , 2009, 8, 912-919.	2.8	21
48	Distinct kinetics of human DNA ligases I, III α , III β , and IV reveal direct DNA sensing ability and differential physiological functions in DNA repair. <i>DNA Repair</i> , 2009, 8, 961-968.	2.8	26
49	Eukaryotic DNA Ligases: Structural and Functional Insights. <i>Annual Review of Biochemistry</i> , 2008, 77, 313-338.	11.1	288
50	Identification and Validation of Human DNA Ligase Inhibitors Using Computer-Aided Drug Design. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 4553-4562.	6.4	71
51	Two DNA-binding and Nick Recognition Modules in Human DNA Ligase III. <i>Journal of Biological Chemistry</i> , 2008, 283, 10764-10772.	3.4	49
52	Rational Design of Human DNA Ligase Inhibitors that Target Cellular DNA Replication and Repair. <i>Cancer Research</i> , 2008, 68, 3169-3177.	0.9	151
53	Up-regulation of WRN and DNA ligase III α in chronic myeloid leukemia: consequences for the repair of DNA double-strand breaks. <i>Blood</i> , 2008, 112, 1413-1423.	1.4	134
54	A Conserved Physical and Functional Interaction between the Cell Cycle Checkpoint Clamp Loader and DNA Ligase I of Eukaryotes. <i>Journal of Biological Chemistry</i> , 2007, 282, 22721-22730.	3.4	20

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55	Role of Dnl4/Lif1 in nonhomologous end-joining repair complex assembly and suppression of homologous recombination. <i>Nature Structural and Molecular Biology</i> , 2007, 14, 639-646.	8.2	118
56	NEIL2-initiated, APE-independent repair of oxidized bases in DNA: Evidence for a repair complex in human cells. <i>DNA Repair</i> , 2006, 5, 1439-1448.	2.8	127
57	A Flexible Interface between DNA Ligase and PCNA Supports Conformational Switching and Efficient Ligation of DNA. <i>Molecular Cell</i> , 2006, 24, 279-291.	9.7	142
58	Human DNA Ligases I, III, and IV—Purification and New Specific Assays for These Enzymes. <i>Methods in Enzymology</i> , 2006, 409, 39-52.	1.0	32
59	Genetic Instability Induced by Overexpression of DNA Ligase I in Budding Yeast. <i>Genetics</i> , 2005, 171, 427-441.	2.9	35
60	Translocation of XRCC1 and DNA ligase III β from centrosomes to chromosomes in response to DNA damage in mitotic human cells. <i>Nucleic Acids Research</i> , 2005, 33, 422-429.	14.5	45
61	Mechanism of DNA double-strand break repair by non-homologous end joining. <i>DNA Repair</i> , 2005, 4, 639-648.	2.8	264
62	Reduced repair of DNA double-strand breaks by homologous recombination in a DNA ligase I-deficient human cell line. <i>DNA Repair</i> , 2005, 4, 649-654.	2.8	28
63	Processing and Joining of DNA Ends Coordinated by Interactions among Dnl4/Lif1, Pol4, and FEN-1. <i>Journal of Biological Chemistry</i> , 2004, 279, 47580-47588.	3.4	48
64	XRCC1 co-localizes and physically interacts with PCNA. <i>Nucleic Acids Research</i> , 2004, 32, 2193-2201.	14.5	172
65	A Conserved Interaction between the Replicative Clamp Loader and DNA Ligase in Eukaryotes. <i>Journal of Biological Chemistry</i> , 2004, 279, 55196-55201.	3.4	50
66	Physical and Functional Interaction between the XPF/ERCC1 Endonuclease and hRad52. <i>Journal of Biological Chemistry</i> , 2004, 279, 13634-13639.	3.4	86
67	Human DNA ligase I completely encircles and partially unwinds nicked DNA. <i>Nature</i> , 2004, 432, 473-478.	27.8	293
68	AP Endonuclease-Independent DNA Base Excision Repair in Human Cells. <i>Molecular Cell</i> , 2004, 15, 209-220.	9.7	434
69	Physical and Functional Interaction between DNA Ligase III β and Poly(ADP-Ribose) Polymerase 1 in DNA Single-Strand Break Repair. <i>Molecular and Cellular Biology</i> , 2003, 23, 5919-5927.	2.3	207
70	A Physical and Functional Interaction between Yeast Pol4 and Dnl4-Lif1 Links DNA Synthesis and Ligation in Nonhomologous End Joining. <i>Journal of Biological Chemistry</i> , 2002, 277, 45630-45637.	3.4	98
71	Promotion of Dnl4-Catalyzed DNA End-Joining by the Rad50/Mre11/Xrs2 and Hdf1/Hdf2 Complexes. <i>Molecular Cell</i> , 2001, 8, 1105-1115.	9.7	276
72	Completion of base excision repair by mammalian DNA ligases. <i>Progress in Molecular Biology and Translational Science</i> , 2001, 68, 151-164.	1.9	94

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73	Interaction between PCNA and DNA ligase I is critical for joining of Okazaki fragments and long-patch base-excision repair. <i>Current Biology</i> , 2000, 10, 919-S2.	3.9	218
74	Interactions of the DNA Ligase IV-XRCC4 Complex with DNA Ends and the DNA-dependent Protein Kinase. <i>Journal of Biological Chemistry</i> , 2000, 275, 26196-26205.	3.4	193
75	DNA Ligase III Is Recruited to DNA Strand Breaks by a Zinc Finger Motif Homologous to That of Poly(ADP-ribose) Polymerase. <i>Journal of Biological Chemistry</i> , 1999, 274, 21679-21687.	3.4	90
76	Thermodynamics of Human DNA Ligase I Trimerization and Association with DNA Polymerase β . <i>Journal of Biological Chemistry</i> , 1998, 273, 20540-20550.	3.4	67
77	Specific Interaction of DNA Polymerase β and DNA Ligase I in a Multiprotein Base Excision Repair Complex from Bovine Testis. <i>Journal of Biological Chemistry</i> , 1996, 271, 16000-16007.	3.4	242
78	Purification and Characterization of DNA Ligase III from Bovine Testes. <i>Journal of Biological Chemistry</i> , 1995, 270, 9683-9690.	3.4	69
79	Mutations in the DNA ligase I gene of an individual with immunodeficiencies and cellular hypersensitivity to DNA-damaging agents. <i>Cell</i> , 1992, 69, 495-503.	28.9	268