Orlando D Scharer

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8342087/publications.pdf

Version: 2024-02-01

96 papers	8,775 citations	50276 46 h-index	42399 92 g-index
100 all docs	100 docs citations	100 times ranked	6999 citing authors

#	Article	IF	Citations
1	Nucleotide Excision Repair in Eukaryotes. Cold Spring Harbor Perspectives in Biology, 2013, 5, a012609-a012609.	5.5	597
2	Molecular Mechanisms of Mammalian Global Genome Nucleotide Excision Repair. Chemical Reviews, 2006, 106, 253-276.	47.7	551
3	The Fanconi Anemia Pathway Promotes Replication-Dependent DNA Interstrand Cross-Link Repair. Science, 2009, 326, 1698-1701.	12.6	454
4	Cloning of a yeast 8-oxoguanine DNA glycosylase reveals the existence of a base-excision DNA-repair protein superfamily. Current Biology, 1996, 6, 968-980.	3.9	447
5	Mechanism of Replication-Coupled DNA Interstrand Crosslink Repair. Cell, 2008, 134, 969-980.	28.9	443
6	Chemistry and Biology of DNA Repair. Angewandte Chemie - International Edition, 2003, 42, 2946-2974.	13.8	343
7	Selective Bypass of a Lagging Strand Roadblock by the Eukaryotic Replicative DNA Helicase. Cell, 2011, 146, 931-941.	28.9	317
8	Crystal Structure of a Human Alkylbase-DNA Repair Enzyme Complexed to DNA. Cell, 1998, 95, 249-258.	28.9	284
9	Mutations in ERCC4, Encoding the DNA-Repair Endonuclease XPF, Cause Fanconi Anemia. American Journal of Human Genetics, 2013, 92, 800-806.	6.2	272
10	Structural Basis for the Excision Repair of Alkylation-Damaged DNA. Cell, 1996, 86, 321-329.	28.9	258
11	Recent progress in the biology, chemistry and structural biology of DNA glycosylases. BioEssays, 2001, 23, 270-281.	2.5	224
12	Coordination of dual incision and repair synthesis in human nucleotide excision repair. EMBO Journal, 2009, 28, 1111-1120.	7.8	223
13	Advances in Understanding the Complex Mechanisms of DNA Interstrand Cross-Link Repair. Cold Spring Harbor Perspectives in Biology, 2013, 5, a012732-a012732.	5.5	196
14	The active site of the DNA repair endonuclease XPF-ERCC1 forms a highly conserved nuclease motif. EMBO Journal, 2002, 21, 2045-2053.	7.8	169
15	DNA Interstrand Crosslinks: Natural and Drug-Induced DNA Adducts that Induce Unique Cellular Responses. ChemBioChem, 2005, 6, 27-32.	2.6	162
16	Crystal structure and DNA binding functions of ERCC1, a subunit of the DNA structure-specific endonuclease XPF-ERCC1. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11236-11241.	7.1	146
17	Repair of cisplatin-induced DNA interstrand crosslinks by a replication-independent pathway involving transcription-coupled repair and translesion synthesis. Nucleic Acids Research, 2012, 40, 8953-8964.	14.5	142
18	Single-molecule manipulation of double-stranded DNA using optical tweezers: Interaction studies of DNA with RecA and YOYO-1. Cytometry, 1999, 36, 200-208.	1.8	137

#	Article	IF	Citations
19	Mammalian Rad51C contributes to DNA cross-link resistance, sister chromatid cohesion and genomic stability. Nucleic Acids Research, 2002, 30, 2172-2182.	14.5	135
20	Regulation of endonuclease activity in human nucleotide excision repair. DNA Repair, 2011, 10, 722-729.	2.8	135
21	Structural basis for the recruitment of ERCC1-XPF to nucleotide excision repair complexes by XPA. EMBO Journal, 2007, 26, 4768-4776.	7.8	132
22	Ordered Conformational Changes in Damaged DNA Induced by Nucleotide Excision Repair Factors. Journal of Biological Chemistry, 2004, 279, 19074-19083.	3.4	128
23	Mouse SLX4 Is a Tumor Suppressor that Stimulates the Activity of the Nuclease XPF-ERCC1 in DNA Crosslink Repair. Molecular Cell, 2014, 54, 472-484.	9.7	126
24	Crystal structure of a thwarted mismatch glycosylase DNA repair complex. EMBO Journal, 1999, 18, 6599-6609.	7.8	122
25	Translesion DNA synthesis polymerases in DNA interstrand crosslink repair. Environmental and Molecular Mutagenesis, 2010, 51, 552-566.	2.2	103
26	The XPA-binding domain of ERCC1 Is Required for Nucleotide Excision Repair but Not Other DNA Repair Pathways. Journal of Biological Chemistry, 2010, 285, 3705-3712.	3.4	97
27	Elements in abasic site recognition by the major human and Escherichia coli apurinic/apyrimidinic endonucleases. Nucleic Acids Research, 1998, 26, 2771-2778.	14.5	96
28	Lack of recognition by global-genome nucleotide excision repair accounts for the high mutagenicity and persistence of aristolactam-DNA adducts. Nucleic Acids Research, 2012, 40, 2494-2505.	14.5	94
29	Specific Binding of a Designed Pyrrolidine Abasic Site Analog to Multiple DNA Glycosylases. Journal of Biological Chemistry, 1998, 273, 8592-8597.	3.4	93
30	Investigation of the mechanisms of DNA binding of the human G/T glycosylase using designed inhibitors. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 4878-4883.	7.1	76
31	Structure-dependent bypass of DNA interstrand crosslinks by translesion synthesis polymerases. Nucleic Acids Research, 2011, 39, 7455-7464.	14.5	74
32	Generation of DNA Interstrand Cross-Links by Post-Synthetic Reductive Amination. Organic Letters, 2009, 11, 661-664.	4.6	71
33	Structural Determinants for Substrate Binding and Catalysis by the Structure-specific Endonuclease XPG. Journal of Biological Chemistry, 2003, 278, 19500-19508.	3.4	69
34	Preparation of C8-Amine and Acetylamine Adducts of 2â€˜-Deoxyguanosine Suitably Protected for DNA Synthesis. Organic Letters, 2002, 4, 4205-4208.	4.6	64
35	The Role of Base Flipping in Damage Recognition and Catalysis by T4 Endonuclease V. Journal of Biological Chemistry, 1997, 272, 27210-27217.	3.4	61
36	The Spacer Region of XPG Mediates Recruitment to Nucleotide Excision Repair Complexes and Determines Substrate Specificity. Journal of Biological Chemistry, 2005, 280, 7030-7037.	3.4	61

#	Article	IF	Citations
37	A Designed Inhibitor of Base-Excision DNA Repair. Journal of the American Chemical Society, 1995, 117, 10781-10782.	13.7	58
38	Unusually Strong Binding of a Designed Transition-State Analog to a Base-Excision DNA Repair Protein. Journal of the American Chemical Society, 1997, 119, 7865-7866.	13.7	58
39	Using synthetic DNA interstrand crosslinks to elucidate repair pathways and identify new therapeutic targets for cancer chemotherapy. Cellular and Molecular Life Sciences, 2010, 67, 3683-3697.	5.4	58
40	Mislocalization of XPF-ERCC1 Nuclease Contributes to Reduced DNA Repair in XP-F Patients. PLoS Genetics, 2010, 6, e1000871.	3.5	57
41	Involvement of translesion synthesis DNA polymerases in DNA interstrand crosslink repair. DNA Repair, 2016, 44, 33-41.	2.8	56
42	A new subâ€pathway of longâ€patch base excision repair involving 5â€² gap formation. EMBO Journal, 2017, 36, 1605-1622.	7.8	56
43	Molecular basis for damage recognition and verification by XPC-RAD23B and TFIIH in nucleotide excision repair. DNA Repair, 2018, 71, 33-42.	2.8	55
44	Specific binding of the DNA repair enzyme AlkA to a pyrrolidine-based inhibitor. Journal of the American Chemical Society, 1995, 117, 6623-6624.	13.7	54
45	Site-specific incorporation of N-(deoxyguanosin-8-yl)-2-acetylaminofluorene (dG-AAF) into oligonucleotides using modified 'ultra-mild' DNA synthesis. Nucleic Acids Research, 2005, 33, 1961-1969.	14.5	53
46	XPG: Its Products and Biological Roles. Advances in Experimental Medicine and Biology, 2008, 637, 83-92.	1.6	49
47	Synthesis of Sequence-Specific DNAâ€“Protein Conjugates via a Reductive Amination Strategy. Bioconjugate Chemistry, 2013, 24, 1496-1506.	3.6	47
48	Single-molecule visualization reveals the damage search mechanism for the human NER protein XPC-RAD23B. Nucleic Acids Research, 2019, 47, 8337-8347.	14.5	46
49	Drosophila DNA polymerase theta utilizes both helicase-like and polymerase domains during microhomology-mediated end joining and interstrand crosslink repair. PLoS Genetics, 2017, 13, e1006813.	3.5	44
50	Sensing and Processing of DNA Interstrand Crosslinks by the Mismatch Repair Pathway. Cell Reports, 2017, 21, 1375-1385.	6.4	43
51	Domain swapping between FEN-1 and XPG defines regions in XPG that mediate nucleotide excision repair activity and substrate specificity. Nucleic Acids Research, 2007, 35, 3053-3063.	14.5	41
52	The molecular basis for different disease states caused by mutations in TFIIH and XPG. DNA Repair, 2008, 7, 339-344.	2.8	39
53	FANCD2-associated Nuclease 1, but Not Exonuclease 1 or Flap Endonuclease 1, Is Able to Unhook DNA Interstrand Cross-links in Vitro. Journal of Biological Chemistry, 2015, 290, 22602-22611.	3.4	37
54	Envisioning how the prototypic molecular machine TFIIH functions in transcription initiation and DNA repair. DNA Repair, 2020, 96, 102972.	2.8	36

#	Article	IF	Citations
55	The Efficiencies of Damage Recognition and Excision Correlate with Duplex Destabilization Induced by Acetylaminofluorene Adducts in Human Nucleotide Excision Repair. Chemical Research in Toxicology, 2012, 25, 2462-2468.	3.3	34
56	FANCI and FANCD2 have common as well as independent functions during the cellular replication stress response. Nucleic Acids Research, 2017, 45, 11837-11857.	14.5	34
57	A key interaction with RPA orients XPA in NER complexes. Nucleic Acids Research, 2020, 48, 2173-2188.	14.5	34
58	Bypass of DNA-Protein Cross-links Conjugated to the 7-Deazaguanine Position of DNA by Translesion Synthesis Polymerases. Journal of Biological Chemistry, 2016, 291, 23589-23603.	3.4	33
59	Achieving Broad Substrate Specificity in Damage Recognition by Binding Accessible Nondamaged DNA. Molecular Cell, 2007, 28, 184-186.	9.7	32
60	Interconverting Conformations of Slipped-DNA Junctions Formed by Trinucleotide Repeats Affect Repair Outcome. Biochemistry, 2013, 52, 773-785.	2.5	32
61	Crosslinking of the NER damage recognition proteins XPC-HR23B, XPA and RPA to photoreactive probes that mimic DNA damages. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 781-789.	2.4	30
62	Interaction of nucleotide excision repair factors XPC-HR23B, XPA, and RPA with damaged DNA. Biochemistry (Moscow), 2008, 73, 886-896.	1.5	30
63	Synthesis and Molecular Modeling of a Nitrogen Mustard DNA Interstrand Crosslink. Chemistry - A European Journal, 2010, 16, 12100-12103.	3.3	30
64	Replication-Coupled DNA Interstrand Cross-Link Repair in Xenopus Egg Extracts. Methods in Molecular Biology, 2012, 920, 221-243.	0.9	30
65	Construction of Plasmids Containing Site-Specific DNA Interstrand Cross-Links for Biochemical and Cell Biological Studies. Methods in Molecular Biology, 2012, 920, 203-219.	0.9	29
66	Synthesis of DNA Interstrand Crossâ€Links Using a Photocaged Nucleobase. Angewandte Chemie - International Edition, 2012, 51, 3466-3469.	13.8	29
67	Multiple DNA Binding Domains Mediate the Function of the ERCC1-XPF Protein in Nucleotide Excision Repair. Journal of Biological Chemistry, 2012, 287, 21846-21855.	3.4	29
68	Structural Determinants for Specific Recognition by T4 Endonuclease V. Journal of Biological Chemistry, 1996, 271, 32147-32152.	3.4	27
69	Synthesis of structurally diverse major groove DNA interstrand crosslinks using three different aldehyde precursors. Nucleic Acids Research, 2014, 42, 7429-7435.	14.5	27
70	The structure and duplex context of DNA interstrand crosslinks affects the activity of DNA polymerase Î·. Nucleic Acids Research, 2016, 44, gkw485.	14.5	27
71	FANCJ Localization by Mismatch Repair Is Vital to Maintain Genomic Integrity after UV Irradiation. Cancer Research, 2014, 74, 932-944.	0.9	26
72	Mutagenicity of a Model DNA-Peptide Cross-Link in Human Cells: Roles of Translesion Synthesis DNA Polymerases. Chemical Research in Toxicology, 2017, 30, 669-677.	3.3	25

#	Article	IF	Citations
73	A modified thymine for the synthesis of site-specific thymine-guanine DNA interstrand crosslinks. Nucleic Acids Research, 2006, 34, 4458-4466.	14.5	22
74	Nucleotide excision repair leaves a mark on chromatin: DNA damage detection in nucleosomes. Cellular and Molecular Life Sciences, 2021, 78, 7925-7942.	5.4	20
75	<i>ERCC1</i>mutations impede DNA damage repair and cause liver and kidney dysfunction in patients. Journal of Experimental Medicine, 2021, 218, .	8.5	18
76	Crosslinking of nucleotide excision repair proteins with DNA containing photoreactive damages. Bioorganic Chemistry, 2008, 36, 77-84.	4.1	17
77	Active DNA damage eviction by HLTF stimulates nucleotide excision repair. Molecular Cell, 2022, 82, 1343-1358.e8.	9.7	16
78	Chemical approaches toward understanding base excision DNA repair. Current Opinion in Chemical Biology, 1997, 1, 526-531.	6.1	15
79	Wedging out DNA damage. Nature Structural and Molecular Biology, 2009, 16, 102-104.	8.2	15
80	A Molecular Basis for Damage Recognition in Eukaryotic Nucleotide Excision Repair. ChemBioChem, 2008, 9, 21-23.	2.6	14
81	Bypass of DNA interstrand crosslinks by a Rev1â€"DNA polymerase Î¶ complex. Nucleic Acids Research, 2020, 48, 8461-8473.	14.5	13
82	Multistep damage recognition, pathway coordination and connections to transcription, damage signaling, chromatin structure, cancer and aging: Current perspectives on the nucleotide excision repair pathway. DNA Repair, 2011, 10, 667.	2.8	10
83	ERCC1â€XPF endonucleaseâ€"positioned toÂcut. EMBO Journal, 2017, 36, 1993-1995.	7.8	9
84	Repair, Removal, and Shutdown: It All Hinges on RNA Polymerase II Ubiquitylation. Cell, 2020, 180, 1039-1041.	28.9	9
85	Structural basis of the fanconi anemia-associated mutations within the FANCA and FANCG complex. Nucleic Acids Research, 2020, 48, 3328-3342.	14.5	9
86	Preparation of Stable Nitrogen Mustard DNA Interstrand Cross-Link Analogs for Biochemical and Cell Biological Studies. Methods in Enzymology, 2017, 591, 415-431.	1.0	8
87	The complexity and regulation of repair of alkylation damage to nucleic acids. Critical Reviews in Biochemistry and Molecular Biology, 2021, 56, 125-136.	5.2	8
88	PARP Inhibition in Prostate Cancer With Homologous Recombination Repair Alterations. JCO Precision Oncology, 2021, 5, 1639-1649.	3.0	7
89	Alkyltransferase-like Proteins: Brokers Dealing with Alkylated DNA Bases. Molecular Cell, 2012, 47, 3-4.	9.7	5
90	New Synthetic Analogs of Nitrogen Mustard DNA Interstrand Cross-Links and Their Use to Study Lesion Bypass by DNA Polymerases. Chemical Research in Toxicology, 2021, 34, 1790-1799.	3.3	5

#	Article	IF	Citations
91	Transcriptional Perturbations of 2,6-Diaminopurine and 2-Aminopurine. ACS Chemical Biology, 2022, 17, 1672-1676.	3.4	5
92	Structural mechanism of DNA interstrand cross-link unhooking by the bacterial FAN1 nuclease. Journal of Biological Chemistry, 2018, 293, 6482-6496.	3.4	3
93	A combination of direct reversion and nucleotide excision repair counters the mutagenic effects of DNA carboxymethylation. DNA Repair, 2022, 110, 103262.	2.8	3
94	Mechanism of Replication-Coupled DNA Interstrand Crosslink Repair. Cell, 2009, 137, 972.	28.9	1
95	Polycarcin V induces DNA-damage response and enables the profiling of DNA-binding proteins. National Science Review, 2022, 9, .	9.5	1
96	Structure-Specific Endonucleases in DNA Repair. Chimia, 2009, 63, 753-757.	0.6	0