

Orlando D Scharer

List of Publications by Year in descending order

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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	A combination of direct reversion and nucleotide excision repair counters the mutagenic effects of DNA carboxymethylation. <i>DNA Repair</i> , 2022, 110, 103262.	2.8	3
2	Polycarcin V induces DNA-damage response and enables the profiling of DNA-binding proteins. <i>National Science Review</i> , 2022, 9, .	9.5	1
3	Active DNA damage eviction by HLTf stimulates nucleotide excision repair. <i>Molecular Cell</i> , 2022, 82, 1343-1358.e8.	9.7	16
4	Transcriptional Perturbations of 2,6-Diaminopurine and 2-Aminopurine. <i>ACS Chemical Biology</i> , 2022, 17, 1672-1676.	3.4	5
5	New Synthetic Analogs of Nitrogen Mustard DNA Interstrand Cross-Links and Their Use to Study Lesion Bypass by DNA Polymerases. <i>Chemical Research in Toxicology</i> , 2021, 34, 1790-1799.	3.3	5
6	The complexity and regulation of repair of alkylation damage to nucleic acids. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2021, 56, 125-136.	5.2	8
7	<i>ERCC1</i> mutations impede DNA damage repair and cause liver and kidney dysfunction in patients. <i>Journal of Experimental Medicine</i> , 2021, 218, .	8.5	18
8	PARP Inhibition in Prostate Cancer With Homologous Recombination Repair Alterations. <i>JCO Precision Oncology</i> , 2021, 5, 1639-1649.	3.0	7
9	Nucleotide excision repair leaves a mark on chromatin: DNA damage detection in nucleosomes. <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 7925-7942.	5.4	20
10	A key interaction with RPA orients XPA in NER complexes. <i>Nucleic Acids Research</i> , 2020, 48, 2173-2188.	14.5	34
11	Envisioning how the prototypic molecular machine TFIIH functions in transcription initiation and DNA repair. <i>DNA Repair</i> , 2020, 96, 102972.	2.8	36
12	Repair, Removal, and Shutdown: It All Hinges on RNA Polymerase II Ubiquitylation. <i>Cell</i> , 2020, 180, 1039-1041.	28.9	9
13	Bypass of DNA interstrand crosslinks by a Rev1-DNA polymerase η complex. <i>Nucleic Acids Research</i> , 2020, 48, 8461-8473.	14.5	13
14	Structural basis of the fanconi anemia-associated mutations within the FANCA and FANCG complex. <i>Nucleic Acids Research</i> , 2020, 48, 3328-3342.	14.5	9
15	Single-molecule visualization reveals the damage search mechanism for the human NER protein XPC-RAD23B. <i>Nucleic Acids Research</i> , 2019, 47, 8337-8347.	14.5	46
16	Structural mechanism of DNA interstrand cross-link unhooking by the bacterial FAN1 nuclease. <i>Journal of Biological Chemistry</i> , 2018, 293, 6482-6496.	3.4	3
17	Molecular basis for damage recognition and verification by XPC-RAD23B and TFIIH in nucleotide excision repair. <i>DNA Repair</i> , 2018, 71, 33-42.	2.8	55
18	Mutagenicity of a Model DNA-Peptide Cross-Link in Human Cells: Roles of Translesion Synthesis DNA Polymerases. <i>Chemical Research in Toxicology</i> , 2017, 30, 669-677.	3.3	25

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19	A new sub- ϵ pathway of long-patch base excision repair involving 5 ϵ^2 gap formation. <i>EMBO Journal</i> , 2017, 36, 1605-1622.	7.8	56
20	Sensing and Processing of DNA Interstrand Crosslinks by the Mismatch Repair Pathway. <i>Cell Reports</i> , 2017, 21, 1375-1385.	6.4	43
21	Preparation of Stable Nitrogen Mustard DNA Interstrand Cross-Link Analogs for Biochemical and Cell Biological Studies. <i>Methods in Enzymology</i> , 2017, 591, 415-431.	1.0	8
22	ERCC1-XPF endonuclease positioned to cut. <i>EMBO Journal</i> , 2017, 36, 1993-1995.	7.8	9
23	FANCI and FANCD2 have common as well as independent functions during the cellular replication stress response. <i>Nucleic Acids Research</i> , 2017, 45, 11837-11857.	14.5	34
24	Drosophila DNA polymerase theta utilizes both helicase-like and polymerase domains during microhomology-mediated end joining and interstrand crosslink repair. <i>PLoS Genetics</i> , 2017, 13, e1006813.	3.5	44
25	Involvement of translesion synthesis DNA polymerases in DNA interstrand crosslink repair. <i>DNA Repair</i> , 2016, 44, 33-41.	2.8	56
26	The structure and duplex context of DNA interstrand crosslinks affects the activity of DNA polymerase β . <i>Nucleic Acids Research</i> , 2016, 44, gkw485.	14.5	27
27	Bypass of DNA-Protein Cross-links Conjugated to the 7-Deazaguanine Position of DNA by Translesion Synthesis Polymerases. <i>Journal of Biological Chemistry</i> , 2016, 291, 23589-23603.	3.4	33
28	FANCD2-associated Nuclease 1, but Not Exonuclease 1 or Flap Endonuclease 1, Is Able to Unhook DNA Interstrand Cross-links in Vitro. <i>Journal of Biological Chemistry</i> , 2015, 290, 22602-22611.	3.4	37
29	FANCI Localization by Mismatch Repair Is Vital to Maintain Genomic Integrity after UV Irradiation. <i>Cancer Research</i> , 2014, 74, 932-944.	0.9	26
30	Synthesis of structurally diverse major groove DNA interstrand crosslinks using three different aldehyde precursors. <i>Nucleic Acids Research</i> , 2014, 42, 7429-7435.	14.5	27
31	Mouse SLX4 Is a Tumor Suppressor that Stimulates the Activity of the Nuclease XPF-ERCC1 in DNA Crosslink Repair. <i>Molecular Cell</i> , 2014, 54, 472-484.	9.7	126
32	Synthesis of Sequence-Specific DNA-Protein Conjugates via a Reductive Amination Strategy. <i>Bioconjugate Chemistry</i> , 2013, 24, 1496-1506.	3.6	47
33	Nucleotide Excision Repair in Eukaryotes. <i>Cold Spring Harbor Perspectives in Biology</i> , 2013, 5, a012609-a012609.	5.5	597
34	Mutations in ERCC4, Encoding the DNA-Repair Endonuclease XPF, Cause Fanconi Anemia. <i>American Journal of Human Genetics</i> , 2013, 92, 800-806.	6.2	272
35	Advances in Understanding the Complex Mechanisms of DNA Interstrand Cross-Link Repair. <i>Cold Spring Harbor Perspectives in Biology</i> , 2013, 5, a012732-a012732.	5.5	196
36	Interconverting Conformations of Slipped-DNA Junctions Formed by Trinucleotide Repeats Affect Repair Outcome. <i>Biochemistry</i> , 2013, 52, 773-785.	2.5	32

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37	Repair of cisplatin-induced DNA interstrand crosslinks by a replication-independent pathway involving transcription-coupled repair and translesion synthesis. <i>Nucleic Acids Research</i> , 2012, 40, 8953-8964.	14.5	142
38	Lack of recognition by global-genome nucleotide excision repair accounts for the high mutagenicity and persistence of aristolactam-DNA adducts. <i>Nucleic Acids Research</i> , 2012, 40, 2494-2505.	14.5	94
39	Construction of Plasmids Containing Site-Specific DNA Interstrand Cross-Links for Biochemical and Cell Biological Studies. <i>Methods in Molecular Biology</i> , 2012, 920, 203-219.	0.9	29
40	The Efficiencies of Damage Recognition and Excision Correlate with Duplex Destabilization Induced by Acetylaminofluorene Adducts in Human Nucleotide Excision Repair. <i>Chemical Research in Toxicology</i> , 2012, 25, 2462-2468.	3.3	34
41	Alkyltransferase-like Proteins: Brokers Dealing with Alkylated DNA Bases. <i>Molecular Cell</i> , 2012, 47, 3-4.	9.7	5
42	Replication-Coupled DNA Interstrand Cross-Link Repair in <i>Xenopus</i> Egg Extracts. <i>Methods in Molecular Biology</i> , 2012, 920, 221-243.	0.9	30
43	Synthesis of DNA Interstrand Cross-Links Using a Photocaged Nucleobase. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 3466-3469.	13.8	29
44	Multiple DNA Binding Domains Mediate the Function of the ERCC1-XPF Protein in Nucleotide Excision Repair. <i>Journal of Biological Chemistry</i> , 2012, 287, 21846-21855.	3.4	29
45	Selective Bypass of a Lagging Strand Roadblock by the Eukaryotic Replicative DNA Helicase. <i>Cell</i> , 2011, 146, 931-941.	28.9	317
46	Multistep damage recognition, pathway coordination and connections to transcription, damage signaling, chromatin structure, cancer and aging: Current perspectives on the nucleotide excision repair pathway. <i>DNA Repair</i> , 2011, 10, 667.	2.8	10
47	Regulation of endonuclease activity in human nucleotide excision repair. <i>DNA Repair</i> , 2011, 10, 722-729.	2.8	135
48	Structure-dependent bypass of DNA interstrand crosslinks by translesion synthesis polymerases. <i>Nucleic Acids Research</i> , 2011, 39, 7455-7464.	14.5	74
49	Using synthetic DNA interstrand crosslinks to elucidate repair pathways and identify new therapeutic targets for cancer chemotherapy. <i>Cellular and Molecular Life Sciences</i> , 2010, 67, 3683-3697.	5.4	58
50	Translesion DNA synthesis polymerases in DNA interstrand crosslink repair. <i>Environmental and Molecular Mutagenesis</i> , 2010, 51, 552-566.	2.2	103
51	Synthesis and Molecular Modeling of a Nitrogen Mustard DNA Interstrand Crosslink. <i>Chemistry - A European Journal</i> , 2010, 16, 12100-12103.	3.3	30
52	The XPA-binding domain of ERCC1 Is Required for Nucleotide Excision Repair but Not Other DNA Repair Pathways. <i>Journal of Biological Chemistry</i> , 2010, 285, 3705-3712.	3.4	97
53	Mislocalization of XPF-ERCC1 Nuclease Contributes to Reduced DNA Repair in XP-F Patients. <i>PLoS Genetics</i> , 2010, 6, e1000871.	3.5	57
54	Coordination of dual incision and repair synthesis in human nucleotide excision repair. <i>EMBO Journal</i> , 2009, 28, 1111-1120.	7.8	223

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55	Wedging out DNA damage. <i>Nature Structural and Molecular Biology</i> , 2009, 16, 102-104.	8.2	15
56	Generation of DNA Interstrand Cross-Links by Post-Synthetic Reductive Amination. <i>Organic Letters</i> , 2009, 11, 661-664.	4.6	71
57	Mechanism of Replication-Coupled DNA Interstrand Crosslink Repair. <i>Cell</i> , 2009, 137, 972.	28.9	1
58	The Fanconi Anemia Pathway Promotes Replication-Dependent DNA Interstrand Cross-Link Repair. <i>Science</i> , 2009, 326, 1698-1701.	12.6	454
59	Structure-Specific Endonucleases in DNA Repair. <i>Chimia</i> , 2009, 63, 753-757.	0.6	0
60	A Molecular Basis for Damage Recognition in Eukaryotic Nucleotide Excision Repair. <i>ChemBioChem</i> , 2008, 9, 21-23.	2.6	14
61	Crosslinking of nucleotide excision repair proteins with DNA containing photoreactive damages. <i>Bioorganic Chemistry</i> , 2008, 36, 77-84.	4.1	17
62	Interaction of nucleotide excision repair factors XPC-HR23B, XPA, and RPA with damaged DNA. <i>Biochemistry (Moscow)</i> , 2008, 73, 886-896.	1.5	30
63	The molecular basis for different disease states caused by mutations in TFIIH and XPG. <i>DNA Repair</i> , 2008, 7, 339-344.	2.8	39
64	Mechanism of Replication-Coupled DNA Interstrand Crosslink Repair. <i>Cell</i> , 2008, 134, 969-980.	28.9	443
65	XPG: Its Products and Biological Roles. <i>Advances in Experimental Medicine and Biology</i> , 2008, 637, 83-92.	1.6	49
66	Domain swapping between FEN-1 and XPG defines regions in XPG that mediate nucleotide excision repair activity and substrate specificity. <i>Nucleic Acids Research</i> , 2007, 35, 3053-3063.	14.5	41
67	Crosslinking of the NER damage recognition proteins XPC-HR23B, XPA and RPA to photoreactive probes that mimic DNA damages. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2007, 1770, 781-789.	2.4	30
68	Achieving Broad Substrate Specificity in Damage Recognition by Binding Accessible Nondamaged DNA. <i>Molecular Cell</i> , 2007, 28, 184-186.	9.7	32
69	Structural basis for the recruitment of ERCC1-XPF to nucleotide excision repair complexes by XPA. <i>EMBO Journal</i> , 2007, 26, 4768-4776.	7.8	132
70	Molecular Mechanisms of Mammalian Global Genome Nucleotide Excision Repair. <i>Chemical Reviews</i> , 2006, 106, 253-276.	47.7	551
71	A modified thymine for the synthesis of site-specific thymine-guanine DNA interstrand crosslinks. <i>Nucleic Acids Research</i> , 2006, 34, 4458-4466.	14.5	22
72	DNA Interstrand Crosslinks: Natural and Drug-Induced DNA Adducts that Induce Unique Cellular Responses. <i>ChemBioChem</i> , 2005, 6, 27-32.	2.6	162

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73	The Spacer Region of XPG Mediates Recruitment to Nucleotide Excision Repair Complexes and Determines Substrate Specificity. <i>Journal of Biological Chemistry</i> , 2005, 280, 7030-7037.	3.4	61
74	Crystal structure and DNA binding functions of ERCC1, a subunit of the DNA structure-specific endonuclease XPF-ERCC1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 11236-11241.	7.1	146
75	Site-specific incorporation of N-(deoxyguanosin-8-yl)-2-acetylaminofluorene (dG-AAF) into oligonucleotides using modified 'ultra-mild' DNA synthesis. <i>Nucleic Acids Research</i> , 2005, 33, 1961-1969.	14.5	53
76	Ordered Conformational Changes in Damaged DNA Induced by Nucleotide Excision Repair Factors. <i>Journal of Biological Chemistry</i> , 2004, 279, 19074-19083.	3.4	128
77	Chemistry and Biology of DNA Repair. <i>Angewandte Chemie - International Edition</i> , 2003, 42, 2946-2974.	13.8	343
78	Structural Determinants for Substrate Binding and Catalysis by the Structure-specific Endonuclease XPG. <i>Journal of Biological Chemistry</i> , 2003, 278, 19500-19508.	3.4	69
79	Mammalian Rad51C contributes to DNA cross-link resistance, sister chromatid cohesion and genomic stability. <i>Nucleic Acids Research</i> , 2002, 30, 2172-2182.	14.5	135
80	Preparation of C8-Amine and Acetylamine Adducts of 2'-Deoxyguanosine Suitably Protected for DNA Synthesis. <i>Organic Letters</i> , 2002, 4, 4205-4208.	4.6	64
81	The active site of the DNA repair endonuclease XPF-ERCC1 forms a highly conserved nuclease motif. <i>EMBO Journal</i> , 2002, 21, 2045-2053.	7.8	169
82	Recent progress in the biology, chemistry and structural biology of DNA glycosylases. <i>BioEssays</i> , 2001, 23, 270-281.	2.5	224
83	Crystal structure of a thwarted mismatch glycosylase DNA repair complex. <i>EMBO Journal</i> , 1999, 18, 6599-6609.	7.8	122
84	Single-molecule manipulation of double-stranded DNA using optical tweezers: Interaction studies of DNA with RecA and YOYO-1. <i>Cytometry</i> , 1999, 36, 200-208.	1.8	137
85	Crystal Structure of a Human Alkylbase-DNA Repair Enzyme Complexed to DNA. <i>Cell</i> , 1998, 95, 249-258.	28.9	284
86	Specific Binding of a Designed Pyrrolidine Abasic Site Analog to Multiple DNA Glycosylases. <i>Journal of Biological Chemistry</i> , 1998, 273, 8592-8597.	3.4	93
87	Elements in abasic site recognition by the major human and <i>Escherichia coli</i> apurinic/aprimidinic endonucleases. <i>Nucleic Acids Research</i> , 1998, 26, 2771-2778.	14.5	96
88	The Role of Base Flipping in Damage Recognition and Catalysis by T4 Endonuclease V. <i>Journal of Biological Chemistry</i> , 1997, 272, 27210-27217.	3.4	61
89	Investigation of the mechanisms of DNA binding of the human G/T glycosylase using designed inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 4878-4883.	7.1	76
90	Unusually Strong Binding of a Designed Transition-State Analog to a Base-Excision DNA Repair Protein. <i>Journal of the American Chemical Society</i> , 1997, 119, 7865-7866.	13.7	58

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91	Chemical approaches toward understanding base excision DNA repair. <i>Current Opinion in Chemical Biology</i> , 1997, 1, 526-531.	6.1	15
92	Structural Basis for the Excision Repair of Alkylation-Damaged DNA. <i>Cell</i> , 1996, 86, 321-329.	28.9	258
93	Cloning of a yeast 8-oxoguanine DNA glycosylase reveals the existence of a base-excision DNA-repair protein superfamily. <i>Current Biology</i> , 1996, 6, 968-980.	3.9	447
94	Structural Determinants for Specific Recognition by T4 Endonuclease V. <i>Journal of Biological Chemistry</i> , 1996, 271, 32147-32152.	3.4	27
95	A Designed Inhibitor of Base-Excision DNA Repair. <i>Journal of the American Chemical Society</i> , 1995, 117, 10781-10782.	13.7	58
96	Specific binding of the DNA repair enzyme AlkA to a pyrrolidine-based inhibitor. <i>Journal of the American Chemical Society</i> , 1995, 117, 6623-6624.	13.7	54