Deborah L Croteau

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5312464/publications.pdf

Version: 2024-02-01

128 papers	12,551 citations	34105 52 h-index	27406 106 g-index
132 all docs	132 docs citations	132 times ranked	13727 citing authors

#	Article	IF	Citations
1	Selfâ€assembly of multiâ€component mitochondrial nucleoids via phase separation. EMBO Journal, 2021, 40, e107165.	7.8	36
2	NAD⁺ supplementation prevents STINGâ€induced senescence in ataxia telangiectasia by improving mitophagy. Aging Cell, 2021, 20, e13329.	6.7	58
3	DNA polymerase Î² outperforms DNA polymerase Î³ in key mitochondrial base excision repair activities. DNA Repair, 2021, 99, 103050.	2.8	11
4	Skin Abnormalities in Disorders with DNA Repair Defects, Premature Aging, and Mitochondrial Dysfunction. Journal of Investigative Dermatology, 2021, 141, 968-975.	0.7	21
5	NAD ⁺ supplementation reduces neuroinflammation and cell senescence in a transgenic mouse model of Alzheimerâ€™s disease via cGASâ€“STING. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	176
6	Olfactory dysfunction in aging and neurodegenerative diseases. Ageing Research Reviews, 2021, 70, 101416.	10.9	56
7	NAD+ augmentation with nicotinamide riboside improves lymphoid potential of Atmâ^'/â^' and old mice HSCs. Npj Aging and Mechanisms of Disease, 2021, 7, 25.	4.5	12
8	CDK2 phosphorylation of Werner protein (WRN) contributes to WRNâ€™s DNA doubleâ€strand break repair pathway choice. Aging Cell, 2021, 20, e13484.	6.7	7
9	A brain proteomic signature of incipient Alzheimerâ€™s disease in young APOE Îµ4 carriers identifies novel drug targets. Science Advances, 2021, 7, eabi8178.	10.3	23
10	Mitophagy and DNA damage signaling in human aging. Mechanisms of Ageing and Development, 2020, 186, 111207.	4.6	40
11	Spatial Transcriptomics Reveals Genes Associated with Dysregulated Mitochondrial Functions and Stress Signaling in Alzheimer Disease. IScience, 2020, 23, 101556.	4.1	61
12	Cockayne syndrome proteins CSA and CSB maintain mitochondrial homeostasis through NAD⁺ signaling. Aging Cell, 2020, 19, e13268.	6.7	26
13	Heterochromatin: an epigenetic point of view in aging. Experimental and Molecular Medicine, 2020, 52, 1466-1474.	7.7	78
14	DNA damage and mitochondria in cancer and aging. Carcinogenesis, 2020, 41, 1625-1634.	2.8	58
15	Interaction between RECQL4 and OGG1 promotes repair of oxidative base lesion 8-oxoG and is regulated by SIRT1 deacetylase. Nucleic Acids Research, 2020, 48, 6530-6546.	14.5	17
16	DNA damage invokes mitophagy through a pathway involving Spata18. Nucleic Acids Research, 2020, 48, 6611-6623.	14.5	31
17	Hippocampal tau oligomerization early in tau pathology coincides with a transient alteration of mitochondrial homeostasis and DNA repair in a mouse model of tauopathy. Acta Neuropathologica Communications, 2020, 8, 25.	5.2	35
18	Short-term NAD+ supplementation prevents hearing loss in mouse models of Cockayne syndrome. Npj Aging and Mechanisms of Disease, 2020, 6, 1.	4.5	45

#	Article	IF	Citations
19	Cockayne syndrome group A and B proteins function in rRNA transcription through nucleolin regulation. Nucleic Acids Research, 2020, 48, 2473-2485.	14.5	34
20	Biological sex and DNA repair deficiency drive Alzheimerâ€™s disease via systemic metabolic remodeling and brain mitochondrial dysfunction. Acta Neuropathologica, 2020, 140, 25-47.	7.7	45
21	Cockayne syndrome group B deficiency reduces H3K9me3 chromatin remodeler SETDB1 and exacerbates cellular aging. Nucleic Acids Research, 2019, 47, 8548-8562.	14.5	26
22	Ageing as a risk factor for neurodegenerative disease. Nature Reviews Neurology, 2019, 15, 565-581.	10.1	1,578
23	NEIL1 stimulates neurogenesis and suppresses neuroinflammation after stress. Free Radical Biology and Medicine, 2019, 141, 47-58.	2.9	17
24	Mitophagy inhibits amyloid-Î² and tau pathology and reverses cognitive deficits in models of Alzheimerâ€™s disease. Nature Neuroscience, 2019, 22, 401-412.	14.8	1,008
25	Diminished OPA1 expression and impaired mitochondrial morphology and homeostasis in Aprataxin-deficient cells. Nucleic Acids Research, 2019, 47, 4086-4110.	14.5	23
26	NAD+ augmentation restores mitophagy and limits accelerated aging in Werner syndrome. Nature Communications, 2019, 10, 5284.	12.8	165
27	NAD⁺ Metabolism in Aging and Cancer. Annual Review of Cancer Biology, 2019, 3, 105-130.	4.5	48
28	A high-throughput screen to identify novel small molecule inhibitors of the Werner Syndrome Helicase-Nuclease (WRN). PLoS ONE, 2019, 14, e0210525.	2.5	24
29	Toward understanding genomic instability, mitochondrial dysfunction and aging. FEBS Journal, 2019, 286, 1058-1073.	4.7	52
30	NAD ⁺ supplementation normalizes key Alzheimerâ€™s features and DNA damage responses in a new AD mouse model with introduced DNA repair deficiency. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E1876-E1885.	7.1	316
31	Enhanced mitochondrial DNA repair of the common disease-associated variant, Ser326Cys, of hOGG1 through small molecule intervention. Free Radical Biology and Medicine, 2018, 124, 149-162.	2.9	17
32	Genome instability in Alzheimer disease. Mechanisms of Ageing and Development, 2017, 161, 83-94.	4.6	83
33	NAD⁺ in DNA repair and mitochondrial maintenance. Cell Cycle, 2017, 16, 491-492.	2.6	40
34	NAD + in Aging: Molecular Mechanisms and Translational Implications. Trends in Molecular Medicine, 2017, 23, 899-916.	6.7	333
35	Cell cycle-dependent phosphorylation regulates RECQL4 pathway choice and ubiquitination in DNA double-strand break repair. Nature Communications, 2017, 8, 2039.	12.8	71
36	Cockayne syndrome: Clinical features, model systems and pathways. Ageing Research Reviews, 2017, 33, 3-17.	10.9	184

#	Article	IF	Citations
37	DNA polymerase Î² decrement triggers death of olfactory bulb cells and impairs olfaction in a mouse model of Alzheimer's disease. Aging Cell, 2017, 16, 162-172.	6.7	38
38	Recent Advances in Understanding Werner Syndrome. F1000Research, 2017, 6, 1779.	1.6	58
39	WRN regulates pathway choice between classical and alternative non-homologous end joining. Nature Communications, 2016, 7, 13785.	12.8	81
40	NAD + Replenishment Improves Lifespan and Healthspan in Ataxia Telangiectasia Models via Mitophagy and DNA Repair. Cell Metabolism, 2016, 24, 566-581.	16.2	420
41	RECQL4 Promotes DNA End Resection in Repair of DNA Double-Strand Breaks. Cell Reports, 2016, 16, 161-173.	6.4	81
42	<scp>RECQL4</scp> helicase has oncogenic potential in sporadic breast cancers. Journal of Pathology, 2016, 238, 495-501.	4.5	43
43	Nuclear DNA damage signalling to mitochondria in ageing. Nature Reviews Molecular Cell Biology, 2016, 17, 308-321.	37.0	294
44	RECQL5 has unique strand annealing properties relative to the other human RecQ helicase proteins. DNA Repair, 2016, 37, 53-66.	2.8	15
45	Clinicopathological and prognostic significance of RECQL5 helicase expression in breast cancers. Carcinogenesis, 2016, 37, 63-71.	2.8	31
46	Camptothecin targets WRN protein: mechanism and relevance in clinical breast cancer. Oncotarget, 2016, 7, 13269-13284.	1.8	38
47	The role of DNA base excision repair in brain homeostasis and disease. DNA Repair, 2015, 32, 172-179.	2.8	30
48	Loss of NEIL1 causes defects in olfactory function in mice. Neurobiology of Aging, 2015, 36, 1007-1012.	3.1	18
49	DNA polymerase Î² deficiency leads to neurodegeneration and exacerbates Alzheimer disease phenotypes. Nucleic Acids Research, 2015, 43, 943-959.	14.5	110
50	Partial loss of the DNA repair scaffolding protein, Xrcc1 , results in increased brain damage and reduced recovery from ischemic stroke in mice. Neurobiology of Aging, 2015, 36, 2319-2330.	3.1	17
51	Differential and Concordant Roles for Poly(ADP-Ribose) Polymerase 1 and Poly(ADP-Ribose) in Regulating WRN and RECQL5 Activities. Molecular and Cellular Biology, 2015, 35, 3974-3989.	2.3	12
52	DNA Damage, DNA Repair, Aging, and Neurodegeneration. Cold Spring Harbor Perspectives in Medicine, 2015, 5, a025130.	6.2	285
53	Protecting the mitochondrial powerhouse. Trends in Cell Biology, 2015, 25, 158-170.	7.9	260
54	Human RECQL1 participates in telomere maintenance. Nucleic Acids Research, 2014, 42, 5671-5688.	14.5	38

#	Article	IF	Citations
55	Defective Mitophagy in XPA via PARP-1 Hyperactivation and NAD+/SIRT1 Reduction. Cell, 2014, 157, 882-896.	28.9	554
56	A High-Fat Diet and NAD + Activate Sirt1 to Rescue Premature Aging in Cockayne Syndrome. Cell Metabolism, 2014, 20, 840-855.	16.2	306
57	The role of RecQ helicases in non-homologous end-joining. Critical Reviews in Biochemistry and Molecular Biology, 2014, 49, 463-472.	5.2	22
58	Contribution of defective mitophagy to the neurodegeneration in DNA repair-deficient disorders. Autophagy, 2014, 10, 1468-1469.	9.1	39
59	RECQ helicase RECQL4 participates in non-homologous end joining and interacts with the Ku complex. Carcinogenesis, 2014, 35, 2415-2424.	2.8	52
60	Base excision DNA repair levels in mitochondrial lysates ofÂAlzheimer's disease. Neurobiology of Aging, 2014, 35, 1293-1300.	3.1	58
61	Human RecQ Helicases in DNA Repair, Recombination, and Replication. Annual Review of Biochemistry, 2014, 83, 519-552.	11.1	461
62	The role of DNA repair in brain related disease pathology. DNA Repair, 2013, 12, 578-587.	2.8	127
63	Mitochondrial deficiency in Cockayne syndrome. Mechanisms of Ageing and Development, 2013, 134, 275-283.	4.6	66
64	Functional deficit associated with a missense Werner syndrome mutation. DNA Repair, 2013, 12, 414-421.	2.8	16
65	The RECQL4 protein, deficient in Rothmundâ€“Thomson syndrome is active on telomeric D-loops containing DNA metabolism blocking lesions. DNA Repair, 2013, 12, 518-528.	2.8	25
66	Human RECQL5: Guarding the crossroads of DNA replication and transcription and providing backup capability. Critical Reviews in Biochemistry and Molecular Biology, 2013, 48, 289-299.	5.2	30
67	RECQL5 plays co-operative and complementary roles with WRN syndrome helicase. Nucleic Acids Research, 2013, 41, 881-899.	14.5	23
68	The RecQ helicase RECQL5 participates in psoralen-induced interstrand cross-link repair. Carcinogenesis, 2013, 34, 2218-2230.	2.8	11
69	A novel diagnostic tool reveals mitochondrial pathology in human diseases and aging. Aging, 2013, 5, 192-208.	3.1	53
70	Relationships between human vitality and mitochondrial respiratory parameters, reactive oxygen species production and dNTP levels in peripheral blood mononuclear cells. Aging, 2013, 5, 850-864.	3.1	36
71	Xeroderma pigmentosum group A protein modulates mitophagy through regulation of mitochondrialâ€associated proteins. FASEB Journal, 2013, 27, lb468.	0.5	0
72	The human RecQ helicases BLM and RECQL4 cooperate to preserve genome stability. Nucleic Acids Research, 2012, 40, 6632-6648.	14.5	52

#	Article	IF	Citations
73	Cockayne syndrome group B protein prevents the accumulation of damaged mitochondria by promoting mitochondrial autophagy. Journal of Experimental Medicine, 2012, 209, 855-869.	8.5	177
74	RECQL4, the Protein Mutated in Rothmund-Thomson Syndrome, Functions in Telomere Maintenance. Journal of Biological Chemistry, 2012, 287, 196-209.	3.4	99
75	Endonuclease VIII-like 1 (NEIL1) promotes short-term spatial memory retention and protects from ischemic stroke-induced brain dysfunction and death in mice. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14948-14953.	7.1	64
76	Human RECQL5 participates in the removal of endogenous DNA damage. Molecular Biology of the Cell, 2012, 23, 4273-4285.	2.1	28
77	RECQL5 cooperates with Topoisomerase II alpha in DNA decatenation and cell cycle progression. Nucleic Acids Research, 2012, 40, 1621-1635.	14.5	43
78	RECQL4 in genomic instability and aging. Trends in Genetics, 2012, 28, 624-631.	6.7	64
79	Sporadic Alzheimer disease fibroblasts display an oxidative stress phenotype. Free Radical Biology and Medicine, 2012, 53, 1371-1380.	2.9	47
80	RECQL4 localizes to mitochondria and preserves mitochondrial DNA integrity. Aging Cell, 2012, 11, 456-466.	6.7	97
81	RecQ helicases in DNA double strand break repair and telomere maintenance. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2012, 736, 15-24.	1.0	66
82	RECQ1 is required for cellular resistance to replication stress and catalyzes strand exchange on stalled replication fork structures. Cell Cycle, 2012, 11, 4252-4265.	2.6	46
83	RAPADILINO RECQL4 mutant protein lacks helicase and ATPase activity. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 1727-1734.	3.8	17
84	Age-Related Disease Association of Endogenous Î³-H2AX Foci in Mononuclear Cells Derived from Leukapheresis. PLoS ONE, 2012, 7, e45728.	2.5	26
85	Recruitment and retention dynamics of RECQL5 at DNA double strand break sites. DNA Repair, 2012, 11, 624-635.	2.8	29
86	DNA binding residues in the RQC domain of Werner protein are critical for its catalytic activities. Aging, 2012, 4, 417-429.	3.1	24
87	The helicase and ATPase activities of RECQL4 are compromised by mutations reported in three human patients. Aging, 2012, 4, 790-802.	3.1	10
88	Cockayne syndrome group B protein prevents the accumulation of damaged mitochondria by promoting mitochondrial autophagy. Journal of Cell Biology, 2012, 197, i4-i4.	5.2	0
89	Identification of a Chemical That Inhibits the Mycobacterial UvrABC Complex in Nucleotide Excision Repair. Biochemistry, 2011, 50, 1329-1335.	2.5	33
90	Evidence that OGG1 Glycosylase Protects Neurons against Oxidative DNA Damage and Cell Death under Ischemic Conditions. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 680-692.	4.3	101

#	Article	IF	Citations
91	Aprataxin localizes to mitochondria and preserves mitochondrial function. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7437-7442.	7.1	76
92	Characterization of RecQL4 biochemical and cellular functions. FASEB Journal, 2011, 25, lb33.	0.5	0
93	Substrate specific stimulation of NEIL1 by WRN but not the other human RecQ helicases. DNA Repair, 2010, 9, 636-642.	2.8	15
94	Conserved helicase domain of human RecQ4 is required for strand annealing-independent DNA unwinding. DNA Repair, 2010, 9, 796-804.	2.8	61
95	The mitochondrial transcription factor A functions in mitochondrial base excision repair. DNA Repair, 2010, 9, 1080-1089.	2.8	120
96	The involvement of human RECQL4 in DNA doubleâ€strand break repair. Aging Cell, 2010, 9, 358-371.	6.7	76
97	Human RECQL5Î² stimulates flap endonuclease 1. Nucleic Acids Research, 2010, 38, 2904-2916.	14.5	23
98	DNA Repair and the Accumulation of Oxidatively Damaged DNA Are Affected by Fruit Intake in Mice. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2010, 65A, 1300-1311.	3.6	9
99	Telomeric D-loops Containing 8-Oxo-2â€²-deoxyguanosine Are Preferred Substrates for Werner and Bloom Syndrome Helicases and Are Bound by POT1. Journal of Biological Chemistry, 2009, 284, 31074-31084.	3.4	51
100	Homologous Recombination but Not Nucleotide Excision Repair Plays a Pivotal Role in Tolerance of DNA-Protein Cross-links in Mammalian Cells. Journal of Biological Chemistry, 2009, 284, 27065-27076.	3.4	109
101	Direct and indirect roles of RECQL4 in modulating base excision repair capacity. Human Molecular Genetics, 2009, 18, 3470-3483.	2.9	75
102	Werner syndrome resembles normal aging. Cell Cycle, 2009, 8, 2319-2323.	2.6	7
103	Werner syndrome resembles normal aging. Cell Cycle, 2009, 8, 2323.	2.6	4
104	Activation-induced deaminase, AID, is catalytically active as a monomer on single-stranded DNA. DNA Repair, 2008, 7, 77-87.	2.8	36
105	Cooperative damage recognition by UvrA and UvrB: Identification of UvrA residues that mediate DNA binding. DNA Repair, 2008, 7, 392-404.	2.8	29
106	DNA repair gets physical: Mapping an XPA-binding site on ERCC1. DNA Repair, 2008, 7, 819-826.	2.8	27
107	Functional Characterization and Atomic Force Microscopy of a DNA Repair Protein Conjugated to a Quantum Dot. Nano Letters, 2008, 8, 1631-1637.	9.1	52
108	DNA Tandem Lesion Repair by Strand Displacement Synthesis and Nucleotide Excision Repair. Biochemistry, 2008, 47, 4306-4316.	2.5	43

#	Article	IF	Citations
109	Crystal Structure of the FeS Clusterâ€“Containing Nucleotide Excision Repair Helicase XPD. PLoS Biology, 2008, 6, e149.	5.6	195
110	Structure of the C-terminal half of UvrC reveals an RNase H endonuclease domain with an Argonaute-like catalytic triad. EMBO Journal, 2007, 26, 613-622.	7.8	55
111	Prokaryotic Nucleotide Excision Repair:â€‰ The UvrABC System. Chemical Reviews, 2006, 106, 233-252.	47.7	294
112	Robust Incision of Benoz[a]pyrene-7,8-dihyrodiol-9,10-epoxideâ^'DNA Adducts by a Recombinant Thermoresistant Interspecies Combination UvrABC Endonuclease Systemâ€. Biochemistry, 2006, 45, 7834-7843.	2.5	11
113	UvrB Domain 4, an Autoinhibitory Gate for Regulation of DNA Binding and ATPase Activity. Journal of Biological Chemistry, 2006, 281, 15227-15237.	3.4	42
114	The C-terminal Zinc Finger of UvrA Does Not Bind DNA Directly but Regulates Damage-specific DNA Binding. Journal of Biological Chemistry, 2006, 281, 26370-26381.	3.4	49
115	Structural insights into the first incision reaction during nucleotide excision repair. EMBO Journal, 2005, 24, 885-894.	7.8	84
116	â€˜Close-fitting sleevesâ€™: DNA damage recognition by the UvrABC nuclease system. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2005, 577, 92-117.	1.0	125
117	Initiation of Repair of DNAâ^'Polypeptide Cross-Links by the UvrABC Nucleaseâ€. Biochemistry, 2005, 44, 3000-3009.	2.5	66
118	Damage Recognition by the Bacterial Nucleotide Excision Repair Machinery. , 2005, , .		0
119	Identification of Residues within UvrB That Are Important for Efficient DNA Binding and Damage Processing. Journal of Biological Chemistry, 2004, 279, 51574-51580.	3.4	37
120	Human Claspin Is a Ring-shaped DNA-binding Protein with High Affinity to Branched DNA Structures. Journal of Biological Chemistry, 2004, 279, 39289-39295.	3.4	66
121	Analyzing the Handoff of DNA from UvrA to UvrB Utilizing DNA-Protein Photoaffinity Labeling. Journal of Biological Chemistry, 2004, 279, 45245-45256.	3.4	66
122	Interactions between UvrA and UvrB: the role of UvrB's domain 2 in nucleotide excision repair. EMBO Journal, 2004, 23, 2498-2509.	7.8	61
123	Purification and Characterization of a Mitochondrial Thymine Glycol Endonuclease from Rat Liver. Journal of Biological Chemistry, 1999, 274, 7128-7136.	3.4	33
124	Mitochondrial DNA repair pathways. Mutation Research DNA Repair, 1999, 434, 137-148.	3.7	200
125	Homogenous repair of singlet oxygen-induced DNA damage in differentially transcribed regions and strands of human mitochondrial DNA. Nucleic Acids Research, 1998, 26, 662-1997.	14.5	80
126	Repair of Oxidative Damage to Nuclear and Mitochondrial DNA in Mammalian Cells. Journal of Biological Chemistry, 1997, 272, 25409-25412.	3.4	427

#	Article	IF	Citations
127	An Oxidative Damage-specific Endonuclease from Rat Liver Mitochondria. Journal of Biological Chemistry, 1997, 272, 27338-27344.	3.4	143
128	Gene-specific nuclear and mitochondrial repair of formamidopyrimidine DNA glycosylase-sensitive sites in Chinese hamster ovary cells. Mutation Research DNA Repair, 1996, 364, 183-192.	3.7	72