Leona D Samson

List of Publications by Year
in descending order

82 papers	8,913 citations	101543 36 h-index	62596 80 g-index
89 all docs	89 docs citations	89 times ranked	13484 citing authors

#	Article	IF	Citations
1	The Lancet Commission on pollution and health. Lancet, The, 2018, 391, 462-512.	13.7	2,747
2	Balancing repair and tolerance of DNA damage caused by alkylating agents. Nature Reviews Cancer, 2012, 12, 104-120.	28.4	740
3	DNA damage induced by chronic inflammation contributes to colon carcinogenesis in mice. Journal of Clinical Investigation, 2008, 118, 2516-25.	8.2	415
4	The human gut bacterial genotoxin colibactin alkylates DNA. Science, 2019, 363, .	12.6	389
5	ARID1A deficiency promotes mutability and potentiates therapeutic antitumor immunity unleashed by immune checkpoint blockade. Nature Medicine, 2018, 24, 556-562.	30.7	372
6	Regulatory Networks Revealed by Transcriptional Profiling of Damaged Saccharomyces cerevisiae Cells: Rpn4 Links Base Excision Repair with Proteasomes. Molecular and Cellular Biology, 2000, 20, 8157-8167.	2.3	329
7	A Systems Approach to Mapping DNA Damage Response Pathways. Science, 2006, 312, 1054-1059.	12.6	248
8	Human AlkB Homolog ABH8 Is a tRNA Methyltransferase Required for Wobble Uridine Modification and DNA Damage Survival. Molecular and Cellular Biology, 2010, 30, 2449-2459.	2.3	182
9	3-methyladenine DNA glycosylases: structure, function, and biological importance. BioEssays, 1999, 21, 668-676.	2.5	173
10	AlkB reverses etheno DNA lesions caused by lipid oxidation in vitro and in vivo. Nature Structural and Molecular Biology, 2005, 12, 855-860.	8.2	168
11	The adaptive imbalance in base excisionâ€"repair enzymes generates microsatellite instability in chronic inflammation. Journal of Clinical Investigation, 2003, 112, 1887-1894.	8.2	166
12	Base Excision Repair Intermediates Induce p53-independent Cytotoxic and Genotoxic Responses. Journal of Biological Chemistry, 2003, 278, 39951-39959.	3.4	162
13	Damage recovery pathways in Saccharomyces cerevisiae revealed by genomic phenotyping and interactome mapping. Molecular Cancer Research, 2002, 1, 103-12.	3.4	136
14	Global network analysis of phenotypic effects: Protein networks and toxicity modulation in Saccharomyces cerevisiae. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 18006-18011.	7.1	123
15	A Chemical and Genetic Approach Together Define the Biological Consequences of 3-Methyladenine Lesions in the Mammalian Genome. Journal of Biological Chemistry, 1998, 273, 5412-5418.	3.4	115
16	Multiplexed DNA repair assays for multiple lesions and multiple doses via transcription inhibition and transcriptional mutagenesis. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E1823-32.	7.1	114
17	Minor Changes in Expression of the Mismatch Repair Protein MSH2 Exert a Major Impact on Glioblastoma Response to Temozolomide. Cancer Research, 2015, 75, 3127-3138.	0.9	96
18	DNA Repair Capacity in Multiple Pathways Predicts Chemoresistance in Glioblastoma Multiforme. Cancer Research, 2017, 77, 198-206.	0.9	96

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19	Hot Spots for Modulating Toxicity Identified by Genomic Phenotyping and Localization Mapping. Molecular Cell, 2004, 16, 117-125.	9.7	90
20	Apoptotic Signaling in Response to a Single Type of DNA Lesion, O6-Methylguanine. Molecular Cell, 2004, 14, 105-116.	9.7	85
21	Aag-initiated base excision repair drives alkylation-induced retinal degeneration in mice. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 888-893.	7.1	80
22	Recognition and Processing of a New Repertoire of DNA Substrates by Human 3-Methyladenine DNA Glycosylase (AAG). Biochemistry, 2009, 48, 1850-1861.	2.5	79
23	GENOME-WIDE RESPONSES TO DNA-DAMAGING AGENTS. Annual Review of Microbiology, 2005, 59, 357-377.	7.3	78
24	Inter-individual variation in DNA repair capacity: A need for multi-pathway functional assays to promote translational DNA repair research. DNA Repair, 2014, 19, 199-213.	2.8	75
25	AlkB Homologue 2â€“Mediated Repair of Ethenoadenine Lesions in Mammalian DNA. Cancer Research, 2008, 68, 4142-4149.	0.9	71
26	DNA repair is indispensable for survival after acute inflammation. Journal of Clinical Investigation, 2012, 122, 2680-2689.	8.2	69
27	Both base excision repair and O6-methylguanine-DNA methyltransferase protect against methylation-induced colon carcinogenesis. Carcinogenesis, 2010, 31, 2111-2117.	2.8	61
28	Imbalanced Base Excision Repair Increases Spontaneous Mutation and Alkylation Sensitivity in Escherichia coli. Journal of Bacteriology, 1999, 181, 6763-6771.	2.2	61
29	3-Methyladenine DNA glycosylase-deficient Aag null mice display unexpected bone marrow alkylation resistance. Cancer Research, 2002, 62, 656-60.	0.9	60
30	Genomic predictors of interindividual differences in response to DNA damaging agents. Genes and Development, 2008, 22, 2621-2626.	5.9	59
31	Aag DNA Glycosylase Promotes Alkylation-Induced Tissue Damage Mediated by Parp1. PLoS Genetics, 2013, 9, e1003413.	3.5	57
32	Frameshift Mutagenesis and Microsatellite Instability Induced by Human Alkyladenine DNA Glycosylase. Molecular Cell, 2010, 37, 843-853.	9.7	50
33	<i>O</i> ⁶ -methylguanine-induced cell death involves exonuclease 1 as well as DNA mismatch recognition in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 576-581.	7.1	49
34	Direct repair of 3,N4-ethenocytosine by the human ALKBH2 dioxygenase is blocked by the AAG/MPG glycosylase. DNA Repair, 2012, 11, 46-52.	2.8	44
35	In vivo measurements of interindividual differences in DNA glycosylases and APE1 activities. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10379-E10388.	7.1	42
36	Genome-wide single-cell-level screen for protein abundance and localization changes in response to DNA damage in S. cerevisiae. Nucleic Acids Research, 2013, 41, 9310-9324.	14.5	40

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37	Genetic association and functional studies of major polymorphic variants of MGMT. DNA Repair, 2007, 6, 1116-1126.	2.8	38
38	Aag-initiated base excision repair promotes ischemia reperfusion injury in liver, brain, and kidney. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E4878-86.	7.1	38
39	<i>O</i>6-Methylguanine DNA lesions induce an intra-S-phase arrest from which cells exit into apoptosis governed by early and late multi-pathway signaling network activation. Integrative Biology (United Kingdom), 2012, 4, 1237-1255.	1.3	34
40	Regulatory Networks Revealed by Transcriptional Profiling of Damaged Saccharomyces cerevisiae Cells: Rpn4 Links Base Excision Repair with Proteasomes. Molecular and Cellular Biology, 2000, 20, 8157-8167.	2.3	32
41	Exposure to arsenic in utero is associated with various types of DNA damage and micronuclei in newborns: a birth cohort study. Environmental Health, 2019, 18, 51.	4.0	31
42	Cisplatin Adducts Inhibit 1,N6-Ethenoadenine Repair by Interacting with the Human 3-Methyladenine DNA Glycosylase. Biochemistry, 2000, 39, 8032-8038.	2.5	30
43	Structural Basis for the Inhibition of Human Alkyladenine DNA Glycosylase (AAG) by 3,N4-Ethenocytosine-containing DNA. Journal of Biological Chemistry, 2011, 286, 13205-13213.	3.4	30
44	Alkyladenine DNA glycosylase (AAG) localizes to mitochondria and interacts with mitochondrial single-stranded binding protein (mtSSB). DNA Repair, 2013, 12, 177-187.	2.8	30
45	Sensitive CometChip assay for screening potentially carcinogenic DNA adducts by trapping DNA repair intermediates. Nucleic Acids Research, 2020, 48, e13-e13.	14.5	29
46	Alkyladenine DNA glycosylase associates with transcription elongation to coordinate DNA repair with gene expression. Nature Communications, 2019, 10, 5460.	12.8	28
47	The interaction between ALKBH2 DNA repair enzyme and PCNA is direct, mediated by the hydrophobic pocket of PCNA and perturbed in naturally-occurring ALKBH2 variants. DNA Repair, 2015, 35, 13-18.	2.8	26
48	Genomic phenotyping of the essential and non-essential yeast genome detects novel pathways for alkylation resistance. BMC Systems Biology, 2011, 5, 157.	3.0	22
49	Inflammation, necrosis, and the kinase RIP3 are key mediators of AAG-dependent alkylation-induced retinal degeneration. Science Signaling, 2019, 12, .	3.6	22
50	Fluorogenic Real-Time Reporters of DNA Repair by MGMT, a Clinical Predictor of Antitumor Drug Response. PLoS ONE, 2016, 11, e0152684.	2.5	22
51	Polymorphisms in O 6-methylguanine DNA methyltransferase and breast cancer risk. Pharmacogenetics and Genomics, 2006, 16, 469-474.	1.5	20
52	A rapid survival assay to measure drug-induced cytotoxicity and cell cycle effects. DNA Repair, 2012, 11, 92-98.	2.8	17
53	Nitric oxide induced S-nitrosation causes base excision repair imbalance. DNA Repair, 2018, 68, 25-33.	2.8	17
54	Parp1 protects against Aag-dependent alkylation-induced nephrotoxicity in a sex-dependent manner. Oncotarget, 2016, 7, 44950-44965.	1.8	17

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55	DNA glycosylase activity and cell proliferation are key factors in modulating homologous recombination in vivo. Carcinogenesis, 2014, 35, 2495-2502.	2.8	16
56	A novel role for transcription-coupled nucleotide excision repair for the<i>in vivo</i>repair of 3,<i>N⁴</i>-ethenocytosine. Nucleic Acids Research, 2017, 45, gkx015.	14.5	16
57	Excision of mutagenic replication-blocking lesions suppresses cancer but promotes cytotoxicity and lethality in nitrosamine-exposed mice. Cell Reports, 2021, 34, 108864.	6.4	16
58	Base Excision Repair. , 2005, 570, 125-173.		16
59	The Protein Degradation Response of <i>Saccharomyces cerevisiae</i> to Classical DNA-Damaging Agents. Chemical Research in Toxicology, 2007, 20, 1843-1853.	3.3	15
60	Fluorescent reporter assays provide direct, accurate, quantitative measurements of MGMT status in human cells. PLoS ONE, 2019, 14, e0208341.	2.5	15
61	PARP inhibitors protect against sex- and AAG-dependent alkylation-induced neural degeneration. Oncotarget, 2017, 8, 68707-68720.	1.8	15
62	Transcriptional Networks in S. cerevisiae Linked to an Accumulation of Base Excision Repair Intermediates. PLoS ONE, 2007, 2, e1252.	2.5	14
63	Anc1, a Protein Associated with Multiple Transcription Complexes, Is Involved in Postreplication Repair Pathway in S. cerevisiae. PLoS ONE, 2008, 3, e3717.	2.5	14
64	ALKBH7 drives a tissue and sex-specific necrotic cell death response following alkylation-induced damage. Cell Death and Disease, 2017, 8, e2947-e2947.	6.3	13
65	Single-Cell Analysis of Ribonucleotide Reductase Transcriptional and Translational Response to DNA Damage. Molecular and Cellular Biology, 2013, 33, 635-642.	2.3	12
66	Substrate specificity and sequence-dependent activity of the Saccharomyces cerevisiae 3-methyladenine DNA glycosylase (Mag). DNA Repair, 2008, 7, 970-982.	2.8	11
67	The Mbd4 DNA glycosylase protects mice from inflammation-driven colon cancer and tissue injury. Oncotarget, 2016, 7, 28624-28636.	1.8	11
68	Identification of Novel Human Damage Response Proteins Targeted through Yeast Orthology. PLoS ONE, 2012, 7, e37368.	2.5	10
69	Repair of endogenous DNA base lesions modulate lifespan in mice. DNA Repair, 2014, 21, 78-86.	2.8	10
70	CometChip analysis of human primary lymphocytes enables quantification of inter-individual differences in the kinetics of repair of oxidative DNA damage. Free Radical Biology and Medicine, 2021, 174, 89-99.	2.9	10
71	Mutational-reporter transgenes rescued from mice lacking either Mgmt, or both Mgmt and Msh6 suggest that O6-alkylguanine-induced miscoding does not contribute to the spontaneous mutational spectrum. Oncogene, 2004, 23, 5931-5940.	5.9	7
72	Microcolony Size Distribution Assay Enables High-Throughput Cell Survival Quantitation. Cell Reports, 2019, 26, 1668-1678.e4.	6.4	7

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73	CometChip enables parallel analysis of multiple DNA repair activities. DNA Repair, 2021, 106, 103176.	2.8	7
74	Alkylation induced cerebellar degeneration dependent on Aag and Parp1 does not occur via previously established cell death mechanisms. PLoS ONE, 2017, 12, e0184619.	2.5	7
75	A target to suppress inflammation. Science, 2018, 362, 748-749.	12.6	6
76	A DNA repair-independent role for alkyladenine DNA glycosylase in alkylation-induced unfolded protein response. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	5
77	3â€methyladenine DNA glycosylases: structure, function, and biological importance. BioEssays, 1999, 21, 668-676.	2.5	3
78	Genomic Phenotyping by Barcode Sequencing Broadly Distinguishes between Alkylating Agents, Oxidizing Agents, and Non-Genotoxic Agents, and Reveals a Role for Aromatic Amino Acids in Cellular Recovery after Quinone Exposure. PLoS ONE, 2013, 8, e73736.	2.5	2
79	DNA Alkylation Repair Limits Spontaneous Base Substitution Mutations in <i>Escherichia coli</i>. Journal of Bacteriology, 1994, 176, 5193-5193.	2.2	1
80	H. John F. Cairns (1922â€“2018). Nature Structural and Molecular Biology, 2019, 26, 149-150.	8.2	0
81	The PROS and CONS of DNA Repair. FASEB Journal, 2011, 25, 67.1-67.1.	0.5	0
82	Alkyladenine DNA Glycosylases. , 2017, , 189-218.		0