Peter C Dedon

List of Publications by Citations

209 papers	10,464 citations	55 h-index	96 g-index
224 ext. papers	12,273 ext. citations	8.1 avg, IF	6.2 L-index

#	Paper	IF	Citations
209	m(6)A RNA modification controls cell fate transition in mammalian embryonic stem cells. *Cell Stem Cell*, **2014**, 15, 707-19	18	675
208	Reactive nitrogen species in the chemical biology of inflammation. *Archives of Biochemistry and Biophysics*, **2004**, 423, 12-22	4.1	488
207	DNA damage induced by chronic inflammation contributes to colon carcinogenesis in mice. *Journal of Clinical Investigation*, **2008**, 118, 2516-25	15.9	347
206	A quantitative systems approach reveals dynamic control of tRNA modifications during cellular stress. *PLoS Genetics*, **2010**, 6, e1001247	6	296
205	Reprogramming of tRNA modifications controls the oxidative stress response by codon-biased translation of proteins. *Nature Communications*, **2012**, 3, 937	17.4	278
204	m(6)A-LAIC-seq reveals the census and complexity of the m(6)A epitranscriptome. *Nature Methods*, **2016**, 13, 692-8	21.6	211
203	Characterization of the reactions of platinum antitumor agents with biologic and nonbiologic sulfur-containing nucleophiles. *Biochemical Pharmacology*, **1987**, 36, 1955-64	6	206
202	Reactive species and DNA damage in chronic inflammation: reconciling chemical mechanisms and biological fates. *International Journal of Cancer*, **2011**, 128, 1999-2009	7.5	201
201	Free-radical mechanisms involved in the formation of sequence-dependent bistranded DNA lesions by the antitumor antibiotics bleomycin, neocarzinostatin, and calicheamicin. *Chemical Research in Toxicology*, **1992**, 5, 311-32	4	196
200	Phosphorothioation of DNA in bacteria by dnd genes. *Nature Chemical Biology*, **2007**, 3, 709-10	11.7	191
199	Gut microbes define liver cancer risk in mice exposed to chemical and viral transgenic hepatocarcinogens. *Gut*, **2010**, 59, 88-97	19.2	177
198	Infection-induced colitis in mice causes dynamic and tissue-specific changes in stress response and DNA damage leading to colon cancer. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, E1820-9	11.5	177
197	Indirect mutagenesis by oxidative DNA damage: formation of the pyrimidopurinone adduct of deoxyguanosine by base propenal. *Proceedings of the National Academy of Sciences of the United States of America*, **1998**, 95, 11113-6	11.5	176
196	The chemical toxicology of 2-deoxyribose oxidation in DNA. *Chemical Research in Toxicology*, **2008**, 21, 206-19	4	173
195	N(6)-Methyladenosine RNA Modification Regulates Shoot Stem Cell Fate in Arabidopsis. *Developmental Cell*, **2016**, 38, 186-200	10.2	164
194	Quantitation of 8-oxoguanine and strand breaks produced by four oxidizing agents. *Chemical Research in Toxicology*, **1997**, 10, 386-92	4	158
193	N-formylation of lysine in histone proteins as a secondary modification arising from oxidative DNA damage. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 60-5	11.5	150

192	Human AlkB homolog ABH8 Is a tRNA methyltransferase required for wobble uridine modification and DNA damage survival. *Molecular and Cellular Biology*, **2010**, 30, 2449-59	4.8	149
191	DNA damage in deoxynucleosides and oligonucleotides treated with peroxynitrite. *Chemical Research in Toxicology*, **1999**, 12, 513-20	4	138
190	Quantitative analysis of ribonucleoside modifications in tRNA by HPLC-coupled mass spectrometry. *Nature Protocols*, **2014**, 9, 828-41	18.8	136
189	Continuous elimination of oxidized nucleotides is necessary to prevent rapid onset of cellular senescence. *Proceedings of the National Academy of Sciences of the United States of America*, **2009**, 106, 169-74	11.5	135
188	A simplified formaldehyde fixation and immunoprecipitation technique for studying protein-DNA interactions. *Analytical Biochemistry*, **1991**, 197, 83-90	3.1	115
187	DNA phosphorothioation is widespread and quantized in bacterial genomes. *Proceedings of the National Academy of Sciences of the United States of America*, **2011**, 108, 2963-8	11.5	113
186	Three distinct 3-methylcytidine (mC) methyltransferases modify tRNA and mRNA in mice and humans. *Journal of Biological Chemistry*, **2017**, 292, 14695-14703	5.4	112
185	Mutations in KEOPS-complex genes cause nephrotic syndrome with primary microcephaly. *Nature Genetics*, **2017**, 49, 1529-1538	36.3	105
184	2RO methylation of internal adenosine by flavivirus NS5 methyltransferase. *PLoS Pathogens*, **2012**, 8, e1002642	7.6	104
183	The mA pathway facilitates sex determination in Drosophila. *Nature Communications*, **2017**, 8, 15737	17.4	103
182	Lipid peroxidation dominates the chemistry of DNA adduct formation in a mouse model of inflammation. *Carcinogenesis*, **2007**, 28, 1807-13	4.6	100
181	Codon-biased translation can be regulated by wobble-base tRNA modification systems during cellular stress responses. *RNA Biology*, **2015**, 12, 603-14	4.8	98
180	tRNA modifications regulate translation during cellular stress. *FEBS Letters*, **2014**, 588, 4287-96	3.8	98
179	Biologically relevant oxidants and terminology, classification and nomenclature of oxidatively generated damage to nucleobases and 2-deoxyribose in nucleic acids. *Free Radical Research*, **2012**, 46, 367-81	4	97
178	DNA methylation impacts gene expression and ensures hypoxic survival of Mycobacterium tuberculosis. *PLoS Pathogens*, **2013**, 9, e1003419	7.6	96
177	Quantification of DNA damage products resulting from deamination, oxidation and reaction with products of lipid peroxidation by liquid chromatography isotope dilution tandem mass spectrometry. *Nature Protocols*, **2008**, 3, 1287-98	18.8	93
176	Exclusive production of bistranded DNA damage by calicheamicin. *Biochemistry*, **1993**, 32, 3617-22	3.2	91
175	tRNA-mediated codon-biased translation in mycobacterial hypoxic persistence. *Nature Communications*, **2016**, 7, 13302	17.4	79

174	Diverse cell stresses induce unique patterns of tRNA up- and down-regulation: tRNA-seq for quantifying changes in tRNA copy number. *Nucleic Acids Research*, **2014**, 42, e170	20.1	79
173	Peroxynitrite-induced DNA damage in the supF gene: correlation with the mutational spectrum. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **2000**, 447, 287-303	3.3	75
172	Kinetic analysis of intracellular concentrations of reactive nitrogen species. *Chemical Research in Toxicology*, **2008**, 21, 2134-47	4	72
171	Chemical and cytokine features of innate immunity characterize serum and tissue profiles in inflammatory bowel disease. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, E2332-41	11.5	71
170	Genomic mapping of phosphorothioates reveals partial modification of short consensus sequences. *Nature Communications*, **2014**, 5, 3951	17.4	70
169	Translational infidelity-induced protein stress results from a deficiency in Trm9-catalyzed tRNA modifications. *RNA Biology*, **2012**, 9, 990-1001	4.8	70
168	A human tRNA methyltransferase 9-like protein prevents tumour growth by regulating LIN9 and HIF1-□*EMBO Molecular Medicine*, **2013**, 5, 366-83	12	69
167	Trm9-Catalyzed tRNA Modifications Regulate Global Protein Expression by Codon-Biased Translation. *PLoS Genetics*, **2015**, 11, e1005706	6	68
166	Chemical and biological evidence for base propenals as the major source of the endogenous M1dG adduct in cellular DNA. *Journal of Biological Chemistry*, **2005**, 280, 25377-82	5.4	68
165	Defects in purine nucleotide metabolism lead to substantial incorporation of xanthine and hypoxanthine into DNA and RNA. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 2319-24	11.5	67
164	AlkB homologue 2-mediated repair of ethenoadenine lesions in mammalian DNA. *Cancer Research*, **2008**, 68, 4142-9	10.1	67
163	Novel genomic island modifies DNA with 7-deazaguanine derivatives. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E1452-9	11.5	66
162	A system of RNA modifications and biased codon use controls cellular stress response at the level of translation. *Chemical Research in Toxicology*, **2014**, 27, 330-7	4	64
161	Absence of 2Rdeoxyoxanosine and presence of abasic sites in DNA exposed to nitric oxide at controlled physiological concentrations. *Chemical Research in Toxicology*, **2003**, 16, 1044-55	4	63
160	Quantifying the RNA cap epitranscriptome reveals novel caps in cellular and viral RNA. *Nucleic Acids Research*, **2019**, 47, e130	20.1	62
159	Cu(II)/H2O2-induced DNA damage is enhanced by packaging of DNA as a nucleosome. *Chemical Research in Toxicology*, **2001**, 14, 416-22	4	62
158	Threshold effects of nitric oxide-induced toxicity and cellular responses in wild-type and p53-null human lymphoblastoid cells. *Chemical Research in Toxicology*, **2006**, 19, 399-406	4	60
157	Increased tRNA modification and gene-specific codon usage regulate cell cycle progression during the DNA damage response. *Cell Cycle*, **2012**, 11, 3656-65	4.7	59

156	Neocarzinostatin-mediated DNA damage in a model AGT.ACT site: mechanistic studies of thiol-sensitive partitioning of C4RDNA damage products. *Biochemistry*, **1992**, 31, 1917-27	3.2	59
155	Reaction of cis- and trans-2-Butene-1,4-dial with 2Rdeoxycytidine to form stable oxadiazabicyclooctaimine adducts. *Journal of the American Chemical Society*, **2001**, 123, 2664-5	16.4	58
154	Highly Predictive Reprogramming of tRNA Modifications Is Linked to Selective Expression of Codon-Biased Genes. *Chemical Research in Toxicology*, **2015**, 28, 978-88	4	53
153	DNA phosphorothioate modification-a new multi-functional epigenetic system in bacteria. *FEMS Microbiology Reviews*, **2019**, 43, 109-122	15.1	53
152	tRNA N6-adenosine threonylcarbamoyltransferase defect due to KAE1/TCS3 (OSGEP) mutation manifest by neurodegeneration and renal tubulopathy. *European Journal of Human Genetics*, **2017**, 25, 545-551	5.3	51
151	Recommendations for standardized description of and nomenclature concerning oxidatively damaged nucleobases in DNA. *Chemical Research in Toxicology*, **2010**, 23, 705-7	4	51
150	Quantification of the 2-deoxyribonolactone and nucleoside 5Raldehyde products of 2-deoxyribose oxidation in DNA and cells by isotope-dilution gas chromatography mass spectrometry: differential effects of gamma-radiation and Fe2+-EDTA. *Journal of the American Chemical Society*, **2010**, 132, 6145-53	16.4	51
149	Paradoxical hotspots for guanine oxidation by a chemical mediator of inflammation. *Nature Chemical Biology*, **2006**, 2, 365-6	11.7	51
148	Formation of the 1,N2-glyoxal adduct of deoxyguanosine by phosphoglycolaldehyde, a product of 3Rdeoxyribose oxidation in DNA. *Chemical Research in Toxicology*, **2001**, 14, 1247-53	4	51
147	A Platform for Discovery and Quantification of Modified Ribonucleosides in RNA: Application to Stress-Induced Reprogramming of tRNA Modifications. *Methods in Enzymology*, **2015**, 560, 29-71	1.7	50
146	Mechanisms of oxidation of guanine in DNA by carbonate radical anion, a decomposition product of nitrosoperoxycarbonate. *Chemistry - A European Journal*, **2007**, 13, 4571-81	4.8	49
145	Influence of thiol structure on neocarzinostatin activation and expression of DNA damage. *Biochemistry*, **1992**, 31, 1909-17	3.2	49
144	Comparative analysis of four oxidized guanine lesions from reactions of DNA with peroxynitrite, singlet oxygen, and □-radiation. *Chemical Research in Toxicology*, **2013**, 26, 195-202	4	47
143	Convergence of DNA methylation and phosphorothioation epigenetics in bacterial genomes. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 4501-4506	11.5	46
142	Relatively small increases in the steady-state levels of nucleobase deamination products in DNA from human TK6 cells exposed to toxic levels of nitric oxide. *Chemical Research in Toxicology*, **2006**, 19, 50-7	4	46
141	Alkbh8 Regulates Selenocysteine-Protein Expression to Protect against Reactive Oxygen Species Damage. *PLoS ONE*, **2015**, 10, e0131335	3.7	45
140	Oxidation of guanine in G, GG, and GGG sequence contexts by aromatic pyrenyl radical cations and carbonate radical anions: relationship between kinetics and distribution of alkali-labile lesions. *Journal of Physical Chemistry B*, **2008**, 112, 1834-44	3.4	45
139	Removal by human apurinic/apyrimidinic endonuclease 1 (Ape 1) and Escherichia coli exonuclease III of 3Rphosphoglycolates from DNA treated with neocarzinostatin, calicheamicin, and gamma-radiation. *Biochemical Pharmacology*, **1999**, 57, 531-8	6	45

138	Quantitative analysis of histone modifications: formaldehyde is a source of pathological n(6)-formyllysine that is refractory to histone deacetylases. *PLoS Genetics*, **2013**, 9, e1003328	6	43
137	Production of Superoxide in Bacteria Is Stress- and Cell State-Dependent: A Gating-Optimized Flow Cytometry Method that Minimizes ROS Measurement Artifacts with Fluorescent Dyes. *Frontiers in Microbiology*, **2017**, 8, 459	5.7	42
136	The Deoxyfucose-Anthranilate of Esperamicin A1 Confers Intercalative DNA Binding and Causes a Switch in the Chemistry of Bistranded DNA Lesions. *Journal of the American Chemical Society*, **1994**, 116, 9733-9738	16.4	42
135	Quantification of cellular poly(ADP-ribosyl)ation by stable isotope dilution mass spectrometry reveals tissue- and drug-dependent stress response dynamics. *ACS Chemical Biology*, **2013**, 8, 1567-75	4.9	40
134	XRCC1 and base excision repair balance in response to nitric oxide. *DNA Repair*, **2011**, 10, 1282-93	4.3	40
133	Integrated molecular analysis indicates undetectable change in DNA damage in mice after continuous irradiation at ~ 400-fold natural background radiation. *Environmental Health Perspectives*, **2012**, 120, 1130-6	8.4	40
132	Effects of DNA structure on oxopropenylation by the endogenous mutagens malondialdehyde and base propenal. *Biochemistry*, **2002**, 41, 5033-42	3.2	39
131	5R(2-phosphoryl-1,4-dioxobutane) as a product of 5Roxidation of deoxyribose in DNA: elimination as trans-1,4-dioxo-2-butene and approaches to analysis. *Chemical Research in Toxicology*, **2004**, 17, 1406-13	4	38
130	Oxidation of phosphorothioate DNA modifications leads to lethal genomic instability. *Nature Chemical Biology*, **2017**, 13, 888-894	11.7	37
129	Induction of functional human macrophages from bone marrow promonocytes by M-CSF in humanized mice. *Journal of Immunology*, **2013**, 191, 3192-9	5.3	37
128	GC/MS methods to quantify the 2-deoxypentos-4-ulose and 3Rphosphoglycolate pathways of 4R oxidation of 2-deoxyribose in DNA: application to DNA damage produced by gamma radiation and bleomycin. *Chemical Research in Toxicology*, **2007**, 20, 1701-8	4	37
127	DNA sequence context as a determinant of the quantity and chemistry of guanine oxidation produced by hydroxyl radicals and one-electron oxidants. *Journal of Biological Chemistry*, **2008**, 283, 35569-78	5.4	35
126	SspABCD-SspE is a phosphorothioation-sensing bacterial defence system with broad anti-phage activities. *Nature Microbiology*, **2020**, 5, 917-928	26.6	34
125	A multidimensional platform for the purification of non-coding RNA species. *Nucleic Acids Research*, **2013**, 41, e168	20.1	34
124	7-Deazaguanine modifications protect phage DNA from host restriction systems. *Nature Communications*, **2019**, 10, 5442	17.4	34
123	Photosensitized oxidative DNA damage: from hole injection to chemical product formation and strand cleavage. *Journal of the American Chemical Society*, **2007**, 129, 9321-32	16.4	33
122	Quantification of DNA strand breaks and abasic sites by oxime derivatization and accelerator mass spectrometry: application to gamma-radiation and peroxynitrite. *Analytical Biochemistry*, **2005**, 343, 84-92	3.1	33
121	Transcriptional Profiling of Mycobacterium tuberculosis Exposed to In Vitro Lysosomal Stress. *Infection and Immunity*, **2016**, 84, 2505-23	3.7	32

120	Pathological phenotypes and in vivo DNA cleavage by unrestrained activity of a phosphorothioate-based restriction system in Salmonella. *Molecular Microbiology*, **2014**, 93, 776-85	4.1	32
119	Immunostimulating and Gram-negative-specific antibacterial cyclotides from the butterfly pea (Clitoria ternatea). *FEBS Journal*, **2016**, 283, 2067-90	5.7	32
118	Methylation at position 32 of tRNA catalyzed by TrmJ alters oxidative stress response in Pseudomonas aeruginosa. *Nucleic Acids Research*, **2016**, 44, 10834-10848	20.1	31
117	Transcriptome-wide dynamics of extensive mA mRNA methylation during Plasmodium falciparum blood-stage development. *Nature Microbiology*, **2019**, 4, 2246-2259	26.6	30
116	Chemistry meets biology in colitis-associated carcinogenesis. *Free Radical Research*, **2013**, 47, 958-86	4	30
115	Dosimetry of N□Formyllysine adducts following [□□C□H]-formaldehyde exposures in rats. *Chemical Research in Toxicology*, **2013**, 26, 1421-3	4	30
114	Effects of peroxynitrite dose and dose rate on DNA damage and mutation in the supF shuttle vector. *Chemical Research in Toxicology*, **2005**, 18, 76-86	4	30
113	Esperamicin A1 Intercalates into Duplex DNA from the Minor Groove. *Journal of the American Chemical Society*, **1994**, 116, 9387-9388	16.4	29
112	Lifestyle modifications: coordinating the tRNA epitranscriptome with codon bias to adapt translation during stress responses. *Genome Biology*, **2018**, 19, 228	18.3	29
111	Irp2 regulates insulin production through iron-mediated Cdkal1-catalyzed tRNA modification. *Nature Communications*, **2020**, 11, 296	17.4	28
110	Delineation of the chemical pathways underlying nitric oxide-induced homologous recombination in mammalian cells. *Chemistry and Biology*, **2005**, 12, 357-69		28
109	The Versatile Roles of the tRNA Epitranscriptome during Cellular Responses to Toxic Exposures and Environmental Stress. *Toxics*, **2019**, 7,	4.7	27
108	Aristolochic Acids as Persistent Soil Pollutants: Determination of Risk for Human Exposure and Nephropathy from Plant Uptake. *Journal of Agricultural and Food Chemistry*, **2018**, 66, 11468-11476	5.7	26
107	Allosteric pyruvate kinase-based "logic gate" synergistically senses energy and sugar levels in Mycobacterium tuberculosis. *Nature Communications*, **2017**, 8, 1986	17.4	25
106	The biological and metabolic fates of endogenous DNA damage products. *Journal of Nucleic Acids*, **2010**, 2010, 929047	2.3	25
105	Stability of 2Rdeoxyxanthosine in DNA. *Nucleic Acids Research*, **2003**, 31, 1045-51	20.1	25
104	The Benzoxazolinate of C-1027 Confers Intercalative DNA Binding. *Journal of the American Chemical Society*, **1995**, 117, 8877-8878	16.4	25
103	Nick-seq for single-nucleotide resolution genomic maps of DNA modifications and damage. *Nucleic Acids Research*, **2020**, 48, 6715-6725	20.1	24

102	Formation of 1,4-dioxo-2-butene-derived adducts of 2Rdeoxyadenosine and 2Rdeoxycytidine in oxidized DNA. *Chemical Research in Toxicology*, **2006**, 19, 982-5	4	23
101	DNA bending is a determinant of calicheamicin target recognition. *Biochemistry*, **2000**, 39, 7605-12	3.2	23
100	A Proteomics Approach to Profiling the Temporal Translational Response to Stress and Growth. *IScience*, **2018**, 9, 367-381	6.1	22
99	28S rRNA is inducibly pseudouridylated by the mTOR pathway translational control in CHO cell cultures. *Journal of Biotechnology*, **2014**, 174, 16-21	3.7	21
98	Development of enzymatic probes of oxidative and nitrosative DNA damage caused by reactive nitrogen species. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **2006**, 594, 120-34	3.3	21
97	Reaction of 2Rdeoxyribonucleosides with cis- and trans-1,4-dioxo-2-butene. *Biochemical and Biophysical Research Communications*, **2004**, 323, 838-44	3.4	21
96	Supercoiling affects the accessibility of glutathione to DNA-bound molecules: positive supercoiling inhibits calicheamicin-induced DNA damage. *Proceedings of the National Academy of Sciences of the United States of America*, **1998**, 95, 102-7	11.5	21
95	Discovery of novel bacterial queuine salvage enzymes and pathways in human pathogens. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 19126-19135	11.5	20
94	Targeting the Bacterial Epitranscriptome for Antibiotic Development: Discovery of Novel tRNA-(NG37) Methyltransferase (TrmD) Inhibitors. *ACS Infectious Diseases*, **2019**, 5, 326-335	5.5	20
93	Challenges in developing DNA and RNA biomarkers of inflammation. *Biomarkers in Medicine*, **2007**, 1, 293-312	2.3	20
92	Biological role of glutathione in nitric oxide-induced toxicity in cell culture and animal models. *Free Radical Biology and Medicine*, **2005**, 39, 1489-98	7.8	20
91	Differential oxidation of deoxyribose in DNA by gamma and alpha-particle radiation. *Radiation Research*, **2005**, 163, 654-62	3.1	20
90	New insights into calicheamicin-DNA interactions derived from a model nucleosome system. *Bioorganic and Medicinal Chemistry*, **1995**, 3, 729-41	3.4	20
89	Comparative tRNA sequencing and RNA mass spectrometry for surveying tRNA modifications. *Nature Chemical Biology*, **2020**, 16, 964-972	11.7	19
88	Analysis of 3Rphosphoglycolaldehyde residues in oxidized DNA by gas chromatography/negative chemical ionization/mass spectrometry. *Chemical Research in Toxicology*, **2003**, 16, 1560-6	4	19
87	Identification and codon reading properties of 5-cyanomethyl uridine, a new modified nucleoside found in the anticodon wobble position of mutant haloarchaeal isoleucine tRNAs. *Rna*, **2014**, 20, 177-88	5.8	18
86	In situ analysis of 8-oxo-7,8-dihydro-2Rdeoxyguanosine oxidation reveals sequence- and agent-specific damage spectra. *Journal of the American Chemical Society*, **2012**, 134, 18053-64	16.4	18
85	Identification of N6,N6-dimethyladenosine in transfer RNA from Mycobacterium bovis Bacille Calmette-Guﬁn. *Molecules*, **2011**, 16, 5168-81	4.8	18

84	Differential effects of DNA supercoiling on radical-mediated DNA strand breaks. *Chemical Research in Toxicology*, **1997**, 10, 1118-22	4	18
83	Surveying the damage: the challenges of developing nucleic acid biomarkers of inflammation. *Molecular BioSystems*, **2008**, 4, 902-8		18
82	tRNA epitranscriptomics and biased codon are linked to proteome expression in. *Molecular Systems Biology*, **2018**, 14, e8009	12.2	17
81	Large scale preparation of positively supercoiled DNA using the archaeal histone HMf. *Nucleic Acids Research*, **1997**, 25, 1660-1	20.1	16
80	AlkB influences the chloroacetaldehyde-induced mutation spectra and toxicity in the pSP189 supF shuttle vector. *Chemical Research in Toxicology*, **2007**, 20, 1075-83	4	16
79	Exploring the virulence gene interactome with CRISPR/dCas9 in the human malaria parasite. *Molecular Systems Biology*, **2020**, 16, e9569	12.2	16
78	Resistance to nitric oxide-induced necrosis in heme oxygenase-1 overexpressing pulmonary epithelial cells associated with decreased lipid peroxidation. *Journal of Biological Chemistry*, **2006**, 281, 36603-12	5.4	15
77	Reciprocal regulation of TORC signaling and tRNA modifications by Elongator enforces nutrient-dependent cell fate. *Science Advances*, **2019**, 5, eaav0184	14.3	14
76	The DNA-damage signature in Saccharomyces cerevisiae is associated with single-strand breaks in DNA. *BMC Genomics*, **2006**, 7, 313	4.5	14
75	DNA damage produced by enediynes in the human phosphoglycerate kinase gene in vivo: esperamicin A1 as a nucleosome footprinting agent. *Biochemistry*, **1998**, 37, 1890-7	3.2	14
74	Tagging Transferrin Receptor with a Disulfide FRET Probe To Gauge the Redox State in Endosomal Compartments. *Analytical Chemistry*, **2020**, 92, 12460-12466	7.8	14
73	Epigenetic competition reveals density-dependent regulation and target site plasticity of phosphorothioate epigenetics in bacteria. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 14322-14330	11.5	13
72	Sequence-dependent variation in the reactivity of 8-Oxo-7,8-dihydro-2Rdeoxyguanosine toward oxidation. *Chemical Research in Toxicology*, **2012**, 25, 366-73	4	13
71	Increased levels of inosine in a mouse model of inflammation. *Chemical Research in Toxicology*, **2013**, 26, 538-46	4	13
70	Thiols alter the partitioning of calicheamicin-induced deoxyribose 4Roxidation reactions in the absence of DNA radical repair. *Chemical Research in Toxicology*, **2001**, 14, 528-35	4	13
69	Thienopyrimidinone Derivatives That Inhibit Bacterial tRNA (Guanine37-)-Methyltransferase (TrmD) by Restructuring the Active Site with a Tyrosine-Flipping Mechanism. *Journal of Medicinal Chemistry*, **2019**, 62, 7788-7805	8.3	12
68	Transfer RNA Induces IL-12p70 via Synergistic Activation of Pattern Recognition Receptors within a Cell Network. *Journal of Immunology*, **2018**, 200, 3244-3258	5.3	12
67	Gene- and genome-based analysis of significant codon patterns in yeast, rat and mice genomes with the CUT Codon UTilization tool. *Methods*, **2016**, 107, 98-109	4.6	12

66	An automated Fpg-based FADU method for the detection of oxidative DNA lesions and screening of antioxidants. *Toxicology*, **2013**, 310, 15-21	4.4	11
65	Discovery of a new predominant cytosine DNA modification that is linked to gene expression in malaria parasites. *Nucleic Acids Research*, **2020**, 48, 184-199	20.1	11
64	Phosphorylation of human TRM9L integrates multiple stress-signaling pathways for tumor growth suppression. *Science Advances*, **2018**, 4, eaas9184	14.3	10
63	In vitro analysis of phosphorothioate modification of DNA reveals substrate recognition by a multiprotein complex. *Scientific Reports*, **2015**, 5, 12513	4.9	10
62	An extensive allelic series of Drosophila kae1 mutants reveals diverse and tissue-specific requirements for t6A biogenesis. *Rna*, **2015**, 21, 2103-18	5.8	10
61	Modulation of enediyne-induced DNA damage by chromatin structures in transcriptionally active genes. *Biochemistry*, **1999**, 38, 15641-6	3.2	10
60	Quantitative mapping of the cellular small RNA landscape with AQRNA-seq. *Nature Biotechnology*, **2021**, 39, 978-988	44.5	10
59	Mycobacterial RNA isolation optimized for non-coding RNA: high fidelity isolation of 5S rRNA from Mycobacterium bovis BCG reveals novel post-transcriptional processing and a complete spectrum of modified ribonucleosides. *Nucleic Acids Research*, **2015**, 43, e32	20.1	9
58	Loss of Elongator- and KEOPS-Dependent tRNA Modifications Leads to Severe Growth Phenotypes and Protein Aggregation in Yeast. *Biomolecules*, **2020**, 10,	5.9	9
57	The tA modification acts as a positive determinant for the anticodon nuclease PrrC, and is distinctively nonessential in Streptococcus mutans. *RNA Biology*, **2018**, 15, 508-517	4.8	9
56	N-Formyllysine as a Biomarker of Formaldehyde Exposure: Formation and Loss of N-Formyllysine in Nasal Epithelium in Long-Term, Low-Dose Inhalation Studies in Rats. *Chemical Research in Toxicology*, **2017**, 30, 1572-1576	4	9
55	Metabolic fate of endogenous molecular damage: Urinary glutathione conjugates of DNA-derived base propenals as markers of inflammation. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, E4845-53	11.5	8
54	Crystal structure and catalytic mechanism of the essential mG37 tRNA methyltransferase TrmD from. *Rna*, **2019**, 25, 1481-1496	5.8	8
53	Solvent exposure associated with single abasic sites alters the base sequence dependence of oxidation of guanine in DNA in GG sequence contexts. *ChemBioChem*, **2011**, 12, 1731-9	3.8	8
52	DNA Oxidation as a Source of Endogenous Electrophiles: Formation of Ethenoadenine Adducts in -Irradiated DNA. *Journal of the American Chemical Society*, **1999**, 121, 9231-9232	16.4	8
51	DNA Phosphorothioate Modifications Are Widely Distributed in the Human Microbiome. *Biomolecules*, **2020**, 10,	5.9	8
50	An improved method for large-scale preparation of negatively and positively supercoiled plasmid DNA. *BioTechniques*, **2009**, 47, 633-5	2.5	7
49	Identification of the minimal bacterial 2Rdeoxy-7-amido-7-deazaguanine synthesis machinery. *Molecular Microbiology*, **2018**, 110, 469-483	4.1	7

48	Calicheamin-mediated DNA damage in a reconstituted nucleosome is not affected by histone acetylation: the role of drug structure in the target recognition process. *Biochemistry*, **1997**, 36, 12653-9	3.2	6
47	Detection of preQ0 deazaguanine modifications in bacteriophage CAjan DNA using Nanopore sequencing reveals same hypermodification at two distinct DNA motifs. *Nucleic Acids Research*, **2020**, 48, 10383-10396	20.1	6
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