Lawrence J Marnett

List of Publications by Citations

228 papers	15,178 citations	65 h-index	115 g-index
242 ext. papers	16,436 ext. citations	7.1 avg, IF	6.8 L-index

#	Paper	IF	Citations
228	Oxyradicals and DNA damage. *Carcinogenesis*, **2000**, 21, 361-70	4.6	1462
227	Naturally occurring carbonyl compounds are mutagens in Salmonella tester strain TA104. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **1985**, 148, 25-34	3.3	460
226	Cyclooxygenases: structural and functional insights. *Journal of Lipid Research*, **2009**, 50 Suppl, S29-34	6.3	394
225	Arachidonic acid oxygenation by COX-1 and COX-2. Mechanisms of catalysis and inhibition. *Journal of Biological Chemistry*, **1999**, 274, 22903-6	5.4	386
224	Oxy radicals, lipid peroxidation and DNA damage. *Toxicology*, **2002**, 181-182, 219-22	4.4	375
223	Structural and functional basis of cyclooxygenase inhibition. *Journal of Medicinal Chemistry*, **2007**, 50, 1425-41	8.3	333
222	Oxygenation of the endocannabinoid, 2-arachidonylglycerol, to glyceryl prostaglandins by cyclooxygenase-2. *Journal of Biological Chemistry*, **2000**, 275, 33744-9	5.4	308
221	Metabolism of the endocannabinoids, 2-arachidonylglycerol and anandamide, into prostaglandin, thromboxane, and prostacyclin glycerol esters and ethanolamides. *Journal of Biological Chemistry*, **2002**, 277, 44877-85	5.4	276
220	COX-2: a target for colon cancer prevention. *Annual Review of Pharmacology and Toxicology*, **2002**, 42, 55-80	17.9	271
219	Ester and amide derivatives of the nonsteroidal antiinflammatory drug, indomethacin, as selective cyclooxygenase-2 inhibitors. *Journal of Medicinal Chemistry*, **2000**, 43, 2860-70	8.3	268
218	Endogenous reactive intermediates as modulators of cell signaling and cell death. *Chemical Research in Toxicology*, **2006**, 19, 173-94	4	236
217	Unequivocal demonstration that malondialdehyde is a mutagen. *Carcinogenesis*, **1983**, 4, 331-3	4.6	236
216	Aspirin-like molecules that covalently inactivate cyclooxygenase-2. *Science*, **1998**, 280, 1268-70	33.3	231
215	Endocannabinoid oxygenation by cyclooxygenases, lipoxygenases, and cytochromes P450: cross-talk between the eicosanoid and endocannabinoid signaling pathways. *Chemical Reviews*, **2011**, 111, 5899-921	68.1	222
214	A novel mechanism of cyclooxygenase-2 inhibition involving interactions with Ser-530 and Tyr-385. *Journal of Biological Chemistry*, **2003**, 278, 45763-9	5.4	219
213	Structural insights into the stereochemistry of the cyclooxygenase reaction. *Nature*, **2000**, 405, 97-101	50.4	197
212	Mechanism of free radical oxygenation of polyunsaturated fatty acids by cyclooxygenases. *Chemical Reviews*, **2003**, 103, 2239-304	68.1	194

211	Systems analysis of protein modification and cellular responses induced by electrophile stress. *Accounts of Chemical Research*, **2010**, 43, 673-83	24.3	181
210	The COXIB experience: a look in the rearview mirror. *Annual Review of Pharmacology and Toxicology* , **2009**, 49, 265-90	17.9	178
209	Cyclooxygenase 2 inhibitors: discovery, selectivity and the future. *Trends in Pharmacological Sciences*, **1999**, 20, 465-9	13.2	168
208	Identification of protein targets of 4-hydroxynonenal using click chemistry for ex vivo biotinylation of azido and alkynyl derivatives. *Chemical Research in Toxicology*, **2008**, 21, 432-44	4	165
207	IkappaB kinase, a molecular target for inhibition by 4-hydroxy-2-nonenal. *Journal of Biological Chemistry*, **2001**, 276, 18223-8	5.4	158
206	Effects of nitric oxide and nitric oxide-derived species on prostaglandin endoperoxide synthase and prostaglandin biosynthesis. *FASEB Journal*, **1999**, 13, 1121-36	0.9	153
205	Identification of adducts formed by reaction of guanine nucleosides with malondialdehyde and structurally related aldehydes. *Chemical Research in Toxicology*, **1988**, 1, 53-9	4	152
204	Molecular basis for cyclooxygenase inhibition by the non-steroidal anti-inflammatory drug naproxen. *Journal of Biological Chemistry*, **2010**, 285, 34950-9	5.4	142
203	Endogenous generation of reactive oxidants and electrophiles and their reactions with DNA and protein. *Journal of Clinical Investigation*, **2003**, 111, 583-93	15.9	137
202	(R)-Profens are substrate-selective inhibitors of endocannabinoid oxygenation by COX-2. *Nature Chemical Biology*, **2011**, 7, 803-9	11.7	134
201	Selective visualization of cyclooxygenase-2 in inflammation and cancer by targeted fluorescent imaging agents. *Cancer Research*, **2010**, 70, 3618-27	10.1	134
200	4-hydroxynonenal induces apoptosis via caspase-3 activation and cytochrome c release. *Chemical Research in Toxicology*, **2001**, 14, 1090-6	4	130
199	HSF1-mediated BAG3 expression attenuates apoptosis in 4-hydroxynonenal-treated colon cancer cells via stabilization of anti-apoptotic Bcl-2 proteins. *Journal of Biological Chemistry*, **2009**, 284, 9176-83	5.4	124
198	Alterations in gene expression induced by the lipid peroxidation product, 4-hydroxy-2-nonenal. *Chemical Research in Toxicology*, **2005**, 18, 1642-53	4	113
197	Prostaglandin synthetase dependent activation of 7,8-dihydro-7,8-dihydroxy-geno (a) pyrene to mutagenic derivativies. *Biochemical and Biophysical Research Communications*, **1978**, 82, 210-6	3.4	109
196	The glyceryl ester of prostaglandin E2 mobilizes calcium and activates signal transduction in RAW264.7 cells. *Proceedings of the National Academy of Sciences of the United States of America*, **2004**, 101, 1840-5	11.5	107
195	Metabolism of prostaglandin glycerol esters and prostaglandin ethanolamides in vitro and in vivo. *Journal of Biological Chemistry*, **2001**, 276, 36993-8	5.4	107
194	Analysis of the malondialdehyde-2Ŧdeoxyguanosine adduct pyrimidopurinone in human leukocyte DNA by gas chromatography/electron capture/negative chemical ionization/mass spectrometry. *Chemical Research in Toxicology*, **1997**, 10, 181-8	4	105

193	Differential sensitivity and mechanism of inhibition of COX-2 oxygenation of arachidonic acid and 2-arachidonoylglycerol by ibuprofen and mefenamic acid. *Biochemistry*, **2009**, 48, 7353-5	3.2	104
192	The binding of arachidonic acid in the cyclooxygenase active site of mouse prostaglandin endoperoxide synthase-2 (COX-2). A putative L-shaped binding conformation utilizing the top channel region. *Journal of Biological Chemistry*, **1999**, 274, 23305-10	5.4	104
191	Covalent modification of cyclooxygenase-2 (COX-2) by 2-acetoxyphenyl alkyl sulfides, a new class of selective COX-2 inactivators. *Journal of Medicinal Chemistry*, **1998**, 41, 4800-18	8.3	102
190	Genetic disruption of 2-arachidonoylglycerol synthesis reveals a key role for endocannabinoid signaling in anxiety modulation. *Cell Reports*, **2014**, 9, 1644-1653	10.6	100
189	Cannabinoids, endocannabinoids, and cancer. *Cancer and Metastasis Reviews*, **2011**, 30, 599-612	9.6	100
188	Peroxidatic oxidation of benzo[a]pyrene and prostaglandin biosynthesis. *Biochemistry*, **1979**, 18, 2923-9	3.2	99
187	Induction of frameshift and base pair substitution mutations by the major DNA adduct of the endogenous carcinogen malondialdehyde. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 14247-52	11.5	98
186	Substrate-selective COX-2 inhibition decreases anxiety via endocannabinoid activation. *Nature Neuroscience*, **2013**, 16, 1291-8	25.5	93
185	Non-redundant functions of cyclooxygenases: oxygenation of endocannabinoids. *Journal of Biological Chemistry*, **2008**, 283, 8065-9	5.4	88
184	Stable histone adduction by 4-oxo-2-nonenal: a potential link between oxidative stress and epigenetics. *Journal of the American Chemical Society*, **2014**, 136, 11864-6	16.4	87
183	Heat shock factor 1 attenuates 4-Hydroxynonenal-mediated apoptosis: critical role for heat shock protein 70 induction and stabilization of Bcl-XL. *Journal of Biological Chemistry*, **2007**, 282, 33412-33420	5.4	86
182	Analysis of endocannabinoids by Ag+ coordination tandem mass spectrometry. *Analytical Biochemistry*, **2003**, 314, 8-15	3.1	85
181	Investigation of the adducts formed by reaction of malondialdehyde with adenosine. *Chemical Research in Toxicology*, **1990**, 3, 33-8	4	84
180	Prostaglandin synthetase dependent benzo(a)pyrene oxidation: products of the oxication and inhibition of their formation by antioxidants. *Biochemical and Biophysical Research Communications*, **1977**, 79, 569-76	3.4	81
179	Induction of mutations by replication of malondialdehyde-modified M13 DNA in Escherichia coli: determination of the extent of DNA modification, genetic requirements for mutagenesis, and types of mutations induced. *Carcinogenesis*, **1995**, 16, 93-9	4.6	80
178	Chemical stability of 2-arachidonylglycerol under biological conditions. *Chemistry and Physics of Lipids*, **2002**, 119, 69-82	3.7	77
177	Substrate-selective COX-2 inhibition as a novel strategy for therapeutic endocannabinoid augmentation. *Trends in Pharmacological Sciences*, **2014**, 35, 358-67	13.2	76
176	Conjugation of cisplatin analogues and cyclooxygenase inhibitors to overcome cisplatin resistance. *ChemMedChem*, **2015**, 10, 183-92	3.7	75

175	Antipsychotic-like Effects of M4 Positive Allosteric Modulators Are Mediated by CB2 Receptor-Dependent Inhibition of Dopamine Release. *Neuron*, **2016**, 91, 1244-1252	13.9	74
174	Oxicams bind in a novel mode to the cyclooxygenase active site via a two-water-mediated H-bonding Network. *Journal of Biological Chemistry*, **2014**, 289, 6799-6808	5.4	74
173	Characterization of the glycosylation sites in cyclooxygenase-2 using mass spectrometry. *Biochemistry*, **2001**, 40, 3109-16	3.2	74
172	Methylglyoxal-derived posttranslational arginine modifications are abundant histone marks. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 9228-9233	11.5	74
171	Reaction of malondialdehyde with guanine nucleosides: formation of adducts containing oxadiazabicyclononene residues in the base-pairing region. *Journal of the American Chemical Society*, **1986**, 108, 1348-1350	16.4	72
170	Spatial requirements for 15-(R)-hydroxy-5Z,8Z,11Z, 13E-eicosatetraenoic acid synthesis within the cyclooxygenase active site of murine COX-2. Why acetylated COX-1 does not synthesize 15-(R)-hete. *Journal of Biological Chemistry*, **2000**, 275, 6586-91	5.4	71
169	Repair of propanodeoxyguanosine by nucleotide excision repair in vivo and in vitro. *Journal of Biological Chemistry*, **1997**, 272, 11434-8	5.4	70
168	Structural basis of enantioselective inhibition of cyclooxygenase-1 by S-alpha-substituted indomethacin ethanolamides. *Journal of Biological Chemistry*, **2007**, 282, 28096-105	5.4	70
167	Indolyl esters and amides related to indomethacin are selective COX-2 inhibitors. *Bioorganic and Medicinal Chemistry*, **2005**, 13, 6810-22	3.4	68
166	Alkylation damage by lipid electrophiles targets functional protein systems. *Molecular and Cellular Proteomics*, **2014**, 13, 849-59	7.6	67
165	Studies of the reaction of malondialdehyde with cytosine nucleosides. *Chemical Research in Toxicology*, **1990**, 3, 467-72	4	66
164	Development of potent and selective indomethacin analogues for the inhibition of AKR1C3 (Type 5 17β-hydroxysteroid dehydrogenase/prostaglandin F synthase) in castrate-resistant prostate cancer. *Journal of Medicinal Chemistry*, **2013**, 56, 2429-46	8.3	65
163	Control of prostaglandin stereochemistry at the 15-carbon by cyclooxygenases-1 and -2. A critical role for serine 530 and valine 349. *Journal of Biological Chemistry*, **2002**, 277, 478-85	5.4	65
162	Misincorporation of nucleotides opposite five-membered exocyclic ring guanine derivatives by escherichia coli polymerases in vitro and in vivo: 1,N2-ethenoguanine, 5,6,7,9-tetrahydro-9-oxoimidazo[1, 2-a]purine, and 5,6,7,9-tetrahydro-7-hydroxy-9-oxoimidazo[1, 2-a]purine. *Biochemistry*, **1998**, 37, 5184-93	3.2	65
161	Selective oxygenation of N-arachidonylglycine by cyclooxygenase-2. *Biochemical and Biophysical Research Communications*, **2002**, 296, 612-7	3.4	64
160	Tyrosine-385 Is Critical for Acetylation of Cyclooxygenase-2 by Aspirin. *Journal of the American Chemical Society*, **2000**, 122, 6514-6515	16.4	62
159	Fluorinated COX-2 inhibitors as agents in PET imaging of inflammation and cancer. *Cancer Prevention Research*, **2011**, 4, 1536-45	3.2	61
158	Amide derivatives of meclofenamic acid as selective cyclooxygenase-2 inhibitors. *Bioorganic and Medicinal Chemistry Letters*, **2002**, 12, 521-4	2.9	61

157	Nonsteroidal antiinflammatory drugs and human cancer. Report of an interdisciplinary research workshop. *Cancer*, **1994**, 74, 2885-8	6.4	61
156	Amino acid determinants in cyclooxygenase-2 oxygenation of the endocannabinoid anandamide. *Biochemistry*, **2003**, 42, 9041-9	3.2	60
155	Oxicams, a class of nonsteroidal anti-inflammatory drugs and beyond. *IUBMB Life*, **2014**, 66, 803-11	4.7	59
154	Lipid profiling reveals arachidonate deficiency in RAW264.7 cells: Structural and functional implications. *Biochemistry*, **2006**, 45, 14795-808	3.2	59
153	Characterization of endogenous DNA adducts by liquid chromatography/electrospray ionization tandem mass spectrometry. *Journal of Mass Spectrometry*, **1995**, 30, 1157-1166	2.2	58
152	Design, synthesis, and structure-activity relationship studies of fluorescent inhibitors of cycloxygenase-2 as targeted optical imaging agents. *Bioconjugate Chemistry*, **2013**, 24, 712-23	6.3	57
151	Functional Redundancy Between Canonical Endocannabinoid Signaling Systems in the Modulation of Anxiety. *Biological Psychiatry*, **2017**, 82, 488-499	7.9	56
150	Mutational analysis of the role of the distal histidine and glutamine residues of prostaglandin-endoperoxide synthase-2 in peroxidase catalysis, hydroperoxide reduction, and cyclooxygenase activation. *Journal of Biological Chemistry*, **1997**, 272, 21565-74	5.4	55
149	Applications of azo-based probes for imaging retinal hypoxia. *ACS Medicinal Chemistry Letters*, **2015** , 6, 445-9	4.3	52
148	In vivo oxidative metabolism of a major peroxidation-derived DNA adduct, M1dG. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 6665-9	11.5	50
147	Amino acid determinants in cyclooxygenase-2 oxygenation of the endocannabinoid 2-arachidonylglycerol. *Journal of Biological Chemistry*, **2001**, 276, 30072-7	5.4	50
146	Fluorescence quenching analysis of the association and dissociation of a diarylheterocycle to cyclooxygenase-1 and cyclooxygenase-2: dynamic basis of cyclooxygenase-2 selectivity. *Biochemistry*, **2000**, 39, 6228-34	3.2	50
145	Hydroperoxide-dependent oxygenation of trans-7,8-dihydroxy-7,8-dihydro benzo[a]pyrene by ram seminal vesicle microsomes. Source of the oxygen. *Biochemical and Biophysical Research Communications*, **1980**, 96, 639-47	3.4	50
144	Cyclooxygenase-1-selective inhibitors based on the (E)-2′des-methyl-sulindac sulfide scaffold. *Journal of Medicinal Chemistry*, **2012**, 55, 2287-300	8.3	49
143	Therapeutic endocannabinoid augmentation for mood and anxiety disorders: comparative profiling of FAAH, MAGL and dual inhibitors. *Translational Psychiatry*, **2018**, 8, 92	8.6	48
142	Conjugates of cisplatin and cyclooxygenase inhibitors as potent antitumor agents overcoming cisplatin resistance. *ChemMedChem*, **2014**, 9, 1150-3	3.7	48
141	The 2′Trifluoromethyl Analogue of Indomethacin Is a Potent and Selective COX-2 Inhibitor. *ACS Medicinal Chemistry Letters*, **2013**, 4, 486-490	4.3	48
140	Molecular basis of the time-dependent inhibition of cyclooxygenases by indomethacin. *Biochemistry*, **2004**, 43, 15439-45	3.2	48

139	IRE1ÐXBP1 signaling in leukocytes controls prostaglandin biosynthesis and pain. *Science*, **2019**, 365,	33.3	46
138	Glycerylprostaglandin synthesis by resident peritoneal macrophages in response to a zymosan stimulus. *Journal of Biological Chemistry*, **2005**, 280, 26690-700	5.4	45
137	Protein modification by oxidized phospholipids and hydrolytically released lipid electrophiles: Investigating cellular responses. *Biochimica Et Biophysica Acta - Biomembranes*, **2012**, 1818, 2424-35	3.8	44
136	Cox-2-derived PGE2 induces Id1-dependent radiation resistance and self-renewal in experimental glioblastoma. *Neuro-Oncology*, **2016**, 18, 1379-89	1	44
135	Inflammation and cancer: chemical approaches to mechanisms, imaging, and treatment. *Journal of Organic Chemistry*, **2012**, 77, 5224-38	4.2	43
134	Structural and functional differences between cyclooxygenases: fatty acid oxygenases with a critical role in cell signaling. *Biochemical and Biophysical Research Communications*, **2005**, 338, 34-44	3.4	42
133	nido-Dicarbaborate Induces Potent and Selective Inhibition of Cyclooxygenase-2. *ChemMedChem*, **2016**, 11, 175-8	3.7	41
132	Measurement of the malondialdehyde-2Ðdeoxyguanosine adduct in human urine by immuno-extraction and liquid chromatography/atmospheric pressure chemical ionization tandem mass spectrometry. *Journal of Mass Spectrometry*, **2004**, 39, 38-42	2.2	40
131	Effects of DNA structure on oxopropenylation by the endogenous mutagens malondialdehyde and base propenal. *Biochemistry*, **2002**, 41, 5033-42	3.2	39
130	Simultaneous analysis of prostaglandin glyceryl esters and prostaglandins by electrospray tandem mass spectrometry. *Analytical Biochemistry*, **2005**, 343, 203-11	3.1	38
129	Kinetics of the interaction of nonsteroidal antiinflammatory drugs with prostaglandin endoperoxide synthase-1 studied by limited proteolysis. *Biochemistry*, **1996**, 35, 9076-82	3.2	38
128	Ortho-carbaborane derivatives of indomethacin as cyclooxygenase (COX)-2 selective inhibitors. *Bioorganic and Medicinal Chemistry*, **2012**, 20, 4830-7	3.4	37
127	Kinetics and mechanism of the general-acid-catalyzed ring-closure of the malondialdehyde-DNA adduct, N2-(3-oxo-1-propenyl)deoxyguanosine (N2OPdG-), to 3-(2ÐDeoxy-beta-D-erythro-pentofuranosyl)pyrimido[1,2-alpha]purin- 10(3H)-one (M1dG). *Journal of the American Chemical Society*, **2004**, 126, 10571-81	16.4	37
126	Studies of the hydrolysis of 14C-labeled tetraethoxypropane to malondialdehyde. *Analytical Biochemistry*, **1979**, 99, 458-63	3.1	37
125	[I]-Celecoxib Analogues as SPECT Tracers of Cyclooxygenase-2 in Inflammation. *ACS Medicinal Chemistry Letters*, **2011**, 2, 160-164	4.3	36
124	Capture and release of alkyne-derivatized glycerophospholipids using cobalt chemistry. *Nature Chemical Biology*, **2010**, 6, 205-207	11.7	36
123	Molecular determinants for the selective inhibition of cyclooxygenase-2 by lumiracoxib. *Journal of Biological Chemistry*, **2007**, 282, 16379-90	5.4	36
122	Dissociation of malondialdehyde mutagenicity in Salmonella typhimurium from its ability to induce interstrand DNA cross-links. *Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis*, **1984**, 129, 39-46	3.3	36

121	Cyclooxygenase-1-dependent prostaglandin synthesis modulates tumor necrosis factor-alpha secretion in lipopolysaccharide-challenged murine resident peritoneal macrophages. *Journal of Biological Chemistry*, **2004**, 279, 34256-68	5.4	35
120	Kinetic and thermodynamic analysis of the hydrolytic ring-opening of the malondialdehyde-deoxyguanosine adduct, 3-(2Ŧdeoxy-beta-D-erythro-pentofuranosyl)-pyrimido[1,2-alpha]purin-10(3H)-one. *Journal of the American Chemical Society*, **2004**, 126, 8237-43	16.4	35
119	RAW264.7 cells lack prostaglandin-dependent autoregulation of tumor necrosis factor-alpha secretion. *Journal of Lipid Research*, **2005**, 46, 1027-37	6.3	35
118	Cyclooxygenase-2 inhibition reduces stress-induced affective pathology. *ELife*, **2016**, 5,	8.9	34
117	Protein-selective capture to analyze electrophile adduction of hsp90 by 4-hydroxynonenal. *Chemical Research in Toxicology*, **2011**, 24, 1275-82	4	33
116	Synthesis and evaluation of carbaborane derivatives of indomethacin as cyclooxygenase inhibitors. *Bioorganic and Medicinal Chemistry*, **2011**, 19, 3242-8	3.4	33
115	Characterization of the lysyl adducts of prostaglandin H-synthases that are derived from oxygenation of arachidonic acid. *Biochemistry*, **2001**, 40, 6948-55	3.2	33
114	Enzymatic synthesis of purine deoxynucleoside adducts. *Chemical Research in Toxicology*, **1991**, 4, 636-8	4	33
113	Structure and Stereochemical Determination of Hypogeamicins from a Cave-Derived Actinomycete. *Journal of Natural Products*, **2014**, 77, 1759-63	4.9	31
112	Aberrant over-expression of COX-1 intersects multiple pro-tumorigenic pathways in high-grade serous ovarian cancer. *Oncotarget*, **2015**, 6, 21353-68	3.3	31
111	Fluorocoxib A loaded nanoparticles enable targeted visualization of cyclooxygenase-2 in inflammation and cancer. *Biomaterials*, **2016**, 92, 71-80	15.6	30
110	Substrate-Selective Inhibition of Cyclooxygenase-2: Development and Evaluation of Achiral Profen Probes. *ACS Medicinal Chemistry Letters*, **2012**, 3, 759-763	4.3	30
109	Molecular imaging of cyclooxygenase-2 in canine transitional cell carcinomas in vitro and in vivo. *Cancer Prevention Research*, **2013**, 6, 466-76	3.2	30
108	Cell cycle re-entry following chemically-induced cell cycle synchronization leads to elevated p53 and p21 protein levels. *Oncogene*, **1997**, 15, 2749-53	9.2	30
107	Design of Fluorine-Containing 3,4-Diarylfuran-2(5H)-ones as Selective COX-1 Inhibitors. *ACS Medicinal Chemistry Letters*, **2014**, 5, 1254-8	4.3	29
106	Prostaglandin E2 inhibits tumor necrosis factor-alpha RNA through PKA type I. *Biochemical and Biophysical Research Communications*, **2008**, 366, 104-9	3.4	29
105	Oxidative metabolism of lipoamino acids and vanilloids by lipoxygenases and cyclooxygenases. *Archives of Biochemistry and Biophysics*, **2007**, 464, 260-8	4.1	29
104	Inhibition of the Biosynthesis of Prostaglandin E2 By Low-Dose Aspirin: Implications for Adenocarcinoma Metastasis. *Cancer Prevention Research*, **2016**, 9, 855-865	3.2	28

103	Next-generation sequencing reveals the biological significance of the N(2),3-ethenoguanine lesion in vivo. *Nucleic Acids Research*, **2015**, 43, 5489-500	20.1	28
102	Hydrolysis of prostaglandin glycerol esters by the endocannabinoid-hydrolyzing enzymes, monoacylglycerol lipase and fatty acid amide hydrolase. *Biochemistry*, **2007**, 46, 9578-85	3.2	28
101	Preparation and proteolytic cleavage of apoprostaglandin endoperoxide synthase. *Methods in Enzymology*, **1990**, 187, 479-85	1.7	28
100	Synthesis of an Oligodeoxyribonucleotide Containing the Alkaline Labile Malondialdehyde-Deoxyguanosine Adduct Pyrimido[1,2-a]purin-10(3H)-one. *Journal of the American Chemical Society*, **1995**, 117, 5007-5008	16.4	27
99	Sulindac derivatives that activate the peroxisome proliferator-activated receptor gamma but lack cyclooxygenase inhibition. *Journal of Medicinal Chemistry*, **2008**, 51, 4911-9	8.3	26
98	Metabolism in vitro and in vivo of the DNA base adduct, M1G. *Chemical Research in Toxicology*, **2007** , 20, 550-7	4	26
97	Synthesis of 5- and 6-carboxy-X-rhodamines. *Organic Letters*, **2008**, 10, 4799-801	6.2	26
96	Nitric oxide deficiency promotes vascular side effects of cyclooxygenase inhibitors. *Blood*, **2006**, 108, 4059-62	2.2	26
95	Peptidyl-prolyl cis/trans-isomerase A1 (Pin1) is a target for modification by lipid electrophiles. *Chemical Research in Toxicology*, **2013**, 26, 270-9	4	25
94	Relating protein adduction to gene expression changes: a systems approach. *Molecular BioSystems*, **2011**, 7, 2118-27		25
93	Zymosan-induced glycerylprostaglandin and prostaglandin synthesis in resident peritoneal macrophages: roles of cyclo-oxygenase-1 and -2. *Biochemical Journal*, **2006**, 399, 91-9	3.8	25
92	Reactions of prostaglandin endoperoxide synthase with nitric oxide and peroxynitrite. *Drug Metabolism Reviews*, **1999**, 31, 273-94	7	25
91	Discovery of (R)-2-(6-Methoxynaphthalen-2-yl)butanoic Acid as a Potent and Selective Aldo-keto Reductase 1C3 Inhibitor. *Journal of Medicinal Chemistry*, **2016**, 59, 7431-44	8.3	25
90	Protein Modification by Endogenously Generated Lipid Electrophiles: Mitochondria as the Source and Target. *ACS Chemical Biology*, **2017**, 12, 2062-2069	4.9	24
89	PET radiotracer [□F]-P6 selectively targeting COX-1 as a novel biomarker in ovarian cancer: preliminary investigation. *European Journal of Medicinal Chemistry*, **2014**, 80, 562-568	6.8	24
88	A novel synthesis of malondialdehyde adducts of deoxyguanosine, deoxyadenosine, and deoxycytidine. *Chemical Research in Toxicology*, **2004**, 17, 144-9	4	24
87	Structural determinants of arylacetic acid nonsteroidal anti-inflammatory drugs necessary for binding and activation of the prostaglandin D2 receptor CRTH2. *Molecular Pharmacology*, **2005**, 67, 640-7	4.3	24
86	Synthesis of oligonucleotides containing the alkali-labile pyrimidopurinone adduct, M(1)G. *Chemical Research in Toxicology*, **2000**, 13, 90-5	4	24

85	Accelerating Precision Drug Development and Drug Repurposing by Leveraging Human Genetics. *Assay and Drug Development Technologies*, **2017**, 15, 113-119	2.1	23
84	Detection of non-melanoma skin cancer by in vivo fluorescence imaging with fluorocoxib A. *Neoplasia*, **2015**, 17, 201-7	6.4	23
83	Structural and Chemical Biology of the Interaction of Cyclooxygenase with Substrates and Non-Steroidal Anti-Inflammatory Drugs. *Chemical Reviews*, **2020**, 120, 7592-7641	68.1	23
82	Prostaglandin E glyceryl ester is an endogenous agonist of the nucleotide receptor P2Y. *Scientific Reports*, **2017**, 7, 2380	4.9	23
81	Structure-activity analysis of diffusible lipid electrophiles associated with phospholipid peroxidation: 4-hydroxynonenal and 4-oxononenal analogues. *Chemical Research in Toxicology*, **2011**, 24, 357-70	4	23
80	Recent developments in cyclooxygenase inhibition. *Prostaglandins and Other Lipid Mediators*, **2002**, 68-69, 153-64	3.7	23
79	Identification of the major prostaglandin glycerol ester hydrolase in human cancer cells. *Journal of Biological Chemistry*, **2014**, 289, 33741-53	5.4	22
78	Trifluoromethyl fluorocoxib a detects cyclooxygenase-2 expression in inflammatory tissues and human tumor xenografts. *ACS Medicinal Chemistry Letters*, **2014**, 5, 446-50	4.3	21
77	Action at a distance: mutations of peripheral residues transform rapid reversible inhibitors to slow, tight binders of cyclooxygenase-2. *Journal of Biological Chemistry*, **2015**, 290, 12793-803	5.4	21
76	In vitro bypass of the major malondialdehyde- and base propenal-derived DNA adduct by human Y-family DNA polymerases □□ and Rev1. *Biochemistry*, **2010**, 49, 8415-24	3.2	21
75	The influence of double bond geometry in the inhibition of cyclooxygenases by sulindac derivatives. *Bioorganic and Medicinal Chemistry Letters*, **2009**, 19, 3271-4	2.9	21
74	In vitro bypass of malondialdehyde-deoxyguanosine adducts: differential base selection during extension by the Klenow fragment of DNA polymerase I is the critical determinant of replication outcome. *Biochemistry*, **2004**, 43, 11828-35	3.2	21
73	Pyrimido[1,2-alpha]purin-10(3H)-one: a reactive electrophile in the genome. *Chemical Research in Toxicology*, **2000**, 13, 967-70	4	21
72	Competition and allostery govern substrate selectivity of cyclooxygenase-2. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12366-71	11.5	20
71	2-Carbaborane-3-phenyl-1H-indoles--synthesis via McMurry reaction and cyclooxygenase (COX) inhibition activity. *ChemMedChem*, **2013**, 8, 329-35	3.7	20
70	13-Methylarachidonic acid is a positive allosteric modulator of endocannabinoid oxygenation by cyclooxygenase. *Journal of Biological Chemistry*, **2015**, 290, 7897-909	5.4	20
69	Mechanisms of cyclooxygenase-2 inhibition and cardiovascular side effects: the plot thickens. *Cancer Prevention Research*, **2009**, 2, 288-90	3.2	20
68	Desmethyl derivatives of indomethacin and sulindac as probes for cyclooxygenase-dependent biology. *ACS Chemical Biology*, **2007**, 2, 479-83	4.9	20

67	Studies on the metabolism of the novel, selective cyclooxygenase-2 inhibitor indomethacin phenethylamide in rat, mouse, and human liver microsomes: identification of active metabolites. *Drug Metabolism and Disposition*, **2004**, 32, 113-22	4	20
66	Inhibition of Diacylglycerol Lipase Impairs Fear Extinction in Mice. *Frontiers in Neuroscience*, **2018**, 12, 479	5.1	20
65	In Vivo Imaging of Retinal Hypoxia in a Model of Oxygen-Induced Retinopathy. *Scientific Reports*, **2016**, 6, 31011	4.9	19
64	Accumulation of isolevuglandin-modified protein in normal and fibrotic lung. *Scientific Reports*, **2016**, 6, 24919	4.9	19
63	Alkynyl lipid surrogates for polyunsaturated fatty acids: free radical and enzymatic oxidations. *Journal of the American Chemical Society*, **2014**, 136, 11529-39	16.4	19
62	Structural determinants for calcium mobilization by prostaglandin E2 and prostaglandin F2alpha glyceryl esters in RAW 264.7 cells and H1819 cells. *Prostaglandins and Other Lipid Mediators*, **2010**, 92, 19-24	3.7	19
61	Development of a method for determination of the malondialdehyde-deoxyguanosine adduct in urine using liquid chromatography-tandem mass spectrometry. *Analytical Biochemistry*, **2003**, 315, 147-51	3.1	19
60	Isoform-selective interaction of cyclooxygenase-2 with indomethacin amides studied by real-time fluorescence, inhibition kinetics, and site-directed mutagenesis. *Biochemistry*, **2002**, 41, 9654-62	3.2	19
59	High-throughput quantification of bioactive lipids by MALDI mass spectrometry: application to prostaglandins. *Analytical Chemistry*, **2011**, 83, 6683-8	7.8	18
58	Monitoring in vivo metabolism and elimination of the endogenous DNA adduct, M1dG {3-(2-deoxy-beta-D-erythro-pentofuranosyl)pyrimido[1,2-alpha]purin-10(3H)-one}, by accelerator mass spectrometry. *Chemical Research in Toxicology*, **2008**, 21, 1290-4	4	18
57	Oxidative stress increases M1dG, a major peroxidation-derived DNA adduct, in mitochondrial DNA. *Nucleic Acids Research*, **2018**, 46, 3458-3467	20.1	17
56	Oxidation and glycolytic cleavage of etheno and propano DNA base adducts. *Biochemistry*, **2009**, 48, 800-9	3.2	17
55	Electrophilic Modification of PKM2 by 4-Hydroxynonenal and 4-Oxononenal Results in Protein Cross-Linking and Kinase Inhibition. *Chemical Research in Toxicology*, **2017**, 30, 635-641	4	16
54	Detection of Cyclooxygenase-2-Derived Oxygenation Products of the Endogenous Cannabinoid 2-Arachidonoylglycerol in Mouse Brain. *ACS Chemical Neuroscience*, **2018**, 9, 1552-1559	5.7	16
53	Covalent Modification of CDK2 by 4-Hydroxynonenal as a Mechanism of Inhibition of Cell Cycle Progression. *Chemical Research in Toxicology*, **2016**, 29, 323-32	4	15
52	Site-specific, intramolecular cross-linking of Pin1 active site residues by the lipid electrophile 4-oxo-2-nonenal. *Chemical Research in Toxicology*, **2015**, 28, 817-27	4	15
51	BMD188, A novel hydroxamic acid compound, demonstrates potent anti-prostate cancer effects in vitro and in vivo by inducing apoptosis: requirements for mitochondria, reactive oxygen species, and proteases. *Pathology and Oncology Research*, **1998**, 4, 179-90	2.6	15
50	Differential cyclooxygenase expression levels and survival associations in type I and type II ovarian tumors. *Journal of Ovarian Research*, **2018**, 11, 17	5.5	14

49	Effect of zileuton and celecoxib on urinary LTE4 and PGE-M levels in smokers. *Cancer Prevention Research*, **2013**, 6, 646-55	3.2	14
48	Histone Adduction and Its Functional Impact on Epigenetics. *Chemical Research in Toxicology*, **2017**, 30, 376-387	4	13
47	Antitumor Activity of Cytotoxic Cyclooxygenase-2 Inhibitors. *ACS Chemical Biology*, **2016**, 11, 3052-3060	4.9	13
46	Nuclear Oxidation of a Major Peroxidation DNA Adduct, M1dG, in the Genome. *Chemical Research in Toxicology*, **2015**, 28, 2334-42	4	13
45	GRASr2 evaluation of aliphatic acyclic and alicyclic terpenoid tertiary alcohols and structurally related substances used as flavoring ingredients. *Journal of Food Science*, **2014**, 79, R428-41	3.4	13
44	Metabolism and elimination of the endogenous DNA adduct, 3-(2-deoxy-beta-D-erythropentofuranosyl)-pyrimido[1,2-alpha]purine-10(3H)-one, in the rat. *Journal of Biological Chemistry*, **2007**, 282, 36257-64	5.4	13
43	Human Platelets Utilize Cycloxygenase-1 to Generate Dioxolane A3, a Neutrophil-activating Eicosanoid. *Journal of Biological Chemistry*, **2016**, 291, 13448-64	5.4	13
42	Lysophospholipases cooperate to mediate lipid homeostasis and lysophospholipid signaling. *Journal of Lipid Research*, **2019**, 60, 360-374	6.3	13
41	Fluorescent indomethacin-dansyl conjugates utilize the membrane-binding domain of cyclooxygenase-2 to block the opening to the active site. *Journal of Biological Chemistry*, **2019**, 294, 8690-8698	5.4	12
40	Multitargeting of selected prostanoid receptors provides agents with enhanced anti-inflammatory activity in macrophages. *FASEB Journal*, **2016**, 30, 394-404	0.9	12
39	Exploring the molecular determinants of substrate-selective inhibition of cyclooxygenase-2 by lumiracoxib. *Bioorganic and Medicinal Chemistry Letters*, **2013**, 23, 5860-4	2.9	12
38	Translesion DNA synthesis by human DNA polymerase eta on templates containing a pyrimidopurinone deoxyguanosine adduct, 3-(2-deoxy-beta-d-erythro-pentofuranosyl)pyrimido-[1,2-a]purin-10(3H)-one. *Biochemistry*, **2009**, 48, 471-80	3.2	11
37	Prostaglandin H synthase-2-catalyzed oxygenation of 2-arachidonoylglycerol is more sensitive to peroxide tone than oxygenation of arachidonic acid. *Journal of Biological Chemistry*, **2012**, 287, 37383-94	5.4	11
36	RNA-seq data analysis at the gene and CDS levels provides a comprehensive view of transcriptome responses induced by 4-hydroxynonenal. *Molecular BioSystems*, **2013**, 9, 3036-46		10
35	Targeted imaging of cancer by fluorocoxib C, a near-infrared cyclooxygenase-2 probe. *Journal of Biomedical Optics*, **2015**, 20, 50502	3.5	10
34	Cobalt carbonyl complexes as probes for alkyne-tagged lipids. *Journal of Lipid Research*, **2013**, 54, 859-868	6.3	10
33	Synthesis and evaluation of [123I]-indomethacin derivatives as COX-2 targeted imaging agents. *Journal of Labelled Compounds and Radiopharmaceuticals*, **2009**, 52, 387-393	1.9	10
32	Naproxen chemoprevention promotes immune activation in Lynch syndrome colorectal mucosa. *Gut*, **2021**, 70, 555-566	19.2	10

31	Quantitative Analysis and Discovery of Lysine and Arginine Modifications. *Analytical Chemistry*, **2017**, 89, 1299-1306	7.8	9
30	Dual cyclooxygenase-fatty acid amide hydrolase inhibitor exploits novel binding interactions in the cyclooxygenase active site. *Journal of Biological Chemistry*, **2018**, 293, 3028-3038	5.4	9
29	Selection of monoclonal antibodies against 6-oxo-M(1)dG and their use in an LC-MS/MS assay for the presence of 6-oxo-M(1)dG in vivo. *Chemical Research in Toxicology*, **2012**, 25, 454-61	4	9
28	Straightforward protocol for the efficient synthesis of varied N(1)-acylated (aza)indole 2-/3-alkanoic acids and esters: optimization and scale-up. *Tetrahedron*, **2012**, 68, 10049-10058	2.4	9
27	Single-dose safety and pharmacokinetic evaluation of fluorocoxib A: pilot study of novel cyclooxygenase-2-targeted optical imaging agent in a canine model. *Journal of Biomedical Optics*, **2012**, 17, 116002	3.5	9
26	(R)- N-(1-Methyl-2-hydroxyethyl)-13-(S)-methyl-arachidonamide (AMG315): A Novel Chiral Potent Endocannabinoid Ligand with Stability to Metabolizing Enzymes. *Journal of Medicinal Chemistry*, **2018**, 61, 8639-8657	8.3	9
25	In vivo endocannabinoid dynamics at the timescale of physiological and pathological neural activity. *Neuron*, **2021**, 109, 2398-2403.e4	13.9	9
24	Harmaline Analogs as Substrate-Selective Cyclooxygenase-2 Inhibitors. *ACS Medicinal Chemistry Letters*, **2020**, 11, 1881-1885	4.3	8
23	Divergence of brain prostaglandin H synthase activity and oxidative damage in mice with encephalitis. *Journal of Neuropathology and Experimental Neurology*, **1999**, 58, 1269-75	3.1	8
22	Discovery of Furanone-Based Radiopharmaceuticals for Diagnostic Targeting of COX-1 in Ovarian Cancer. *ACS Omega*, **2019**, 4, 9251-9261	3.9	7
21	Assay of Endocannabinoid Oxidation by Cyclooxygenase-2. *Methods in Molecular Biology*, **2016**, 1412, 205-15	1.4	6
20	Conservative Secondary Shell Substitution In Cyclooxygenase-2 Reduces Inhibition by Indomethacin Amides and Esters via Altered Enzyme Dynamics. *Biochemistry*, **2016**, 55, 348-59	3.2	6
19	Podophyllotoxin analogues active versus Trypanosoma brucei. *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20, 1787-91	2.9	6
18	Signal integration and information transfer in an allosterically regulated network. *Npj Systems Biology and Applications*, **2019**, 5, 23	5	5
17	Fluorescent Probes of the Apoptolidins and their Utility in Cellular Localization Studies. *Angewandte Chemie*, **2015**, 127, 975-978	3.6	5
16	Aspects of Prostaglandin Glycerol Ester Biology. *Advances in Experimental Medicine and Biology*, **2019**, 1161, 77-88	3.6	5
15	Detection of carcinogen-induced bladder cancer by fluorocoxib A. *BMC Cancer*, **2019**, 19, 1152	4.8	5
14	Targeted Detection of Cyclooxygenase-1 in Ovarian Cancer. *ACS Medicinal Chemistry Letters*, **2020**, 11, 1837-1842	4.3	5

13	Detection of tyrosine kinase inhibitors-induced COX-2 expression in bladder cancer by fluorocoxib A. *Oncotarget*, **2019**, 10, 5168-5180	3.3	3
12	Adventures with Bruce Ames and the Ames test. *Mutation Research - Genetic Toxicology and Environmental Mutagenesis*, **2019**, 846, 403070	3	2
11	Targeting diacylglycerol lipase reduces alcohol consumption in preclinical models. *Journal of Clinical Investigation*, **2021**,	15.9	2
10	DNA Damage Caused by Endogenously Generated Products of Oxidative Stress105-130		2
9	Molecular Imaging of Inflammation in Osteoarthritis Using a Water-Soluble Fluorocoxib. *ACS Medicinal Chemistry Letters*, **2020**, 11, 1875-1880	4.3	1
8	Functional Implications of Biochemical and Molecular Characteristics of Donation After Circulatory Death Livers. *Transplantation Direct*, **2015**, 1, e18	2.3	1
7	The Impact of Electronic Publication. *Chemical Research in Toxicology*, **2005**, 18, 1-2	4	1
6	Cyclooxygenase Inhibition Mechanisms: Recent Advances1		1
5	NSAID Action and the Foundations for Cardiovascular Toxicity257-285		1
4	Fluorocoxib A enables targeted detection of cyclooxygenase-2 in laser-induced choroidal neovascularization. *Journal of Biomedical Optics*, **2016**, 21, 90503	3.5	0
3	Oxidative Metabolites of Endocannabinoids Formed by Cyclooxygenase-2 **2015**, 49-65		
2	Selective Modulation of DNA Polymerase Activity by Fixed-Conformation Nucleoside Analogues. *Angewandte Chemie*, **2010**, 122, 7643-7647	3.6	
1	Disruption of mitochondrial DNA polymerase replication by the aldehyde adduct of DNA, M1dG. *FASEB Journal*, **2011**, 25, 880.1	0.9	