Donald S. Backos

List of Publications by Year
in descending order

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94 papers	5,748 citations	101543 36 h-index	76900 74 g-index
103 all docs	103 docs citations	103 times ranked	10149 citing authors

#	Article	IF	Citations
1	The STAT3-MYC axis promotes survival of leukemia stem cells by regulating SLC1A5 and oxidative phosphorylation. Blood, 2022, 139, 584-596.	1.4	51
2	Deglutarylation of glutaryl-CoA dehydrogenase by deacylating enzyme SIRT5 promotes lysine oxidation in mice. Journal of Biological Chemistry, 2022, 298, 101723.	3.4	5
3	Multifunctional role of thymidine phosphorylase in cancer. Trends in Cancer, 2022, 8, 482-493.	7.4	4
4	A Novel Glucocorticoid and Androgen Receptor Modulator Reduces Viral Entry and Innate Immune Inflammatory Responses in the Syrian Hamster Model of SARS-CoV-2 Infection. Frontiers in Immunology, 2022, 13, 811430.	4.8	8
5	Auriculocondylar syndrome 2 results from the dominant-negative action of PLCB4 variants. DMM Disease Models and Mechanisms, 2022, 15, .	2.4	6
6	Statin therapy inhibits fatty acid synthase via dynamic protein modifications. Nature Communications, 2022, 13, 2542.	12.8	7
7	Maneb alters central carbon metabolism and thiol redox status in a toxicant model of Parkinson's disease. Free Radical Biology and Medicine, 2021, 162, 65-76.	2.9	22
8	Inhibition of BRAF and ERK1/2 has synergistic effects on thyroid cancer growth in vitro and in vivo. Molecular Carcinogenesis, 2021, 60, 201-212.	2.7	15
9	Persistent, Progressive Pulmonary Fibrosis and Epithelial Remodeling in Mice. American Journal of Respiratory Cell and Molecular Biology, 2021, 64, 669-676.	2.9	39
10	Maneb adducts human peroxiredoxin 3 through thiol interactions. Advances in Redox Research, 2021, 2, 100008.	2.1	0
11	N-Substituted pyrrolopyrimidines and purines as p90 ribosomal S6 protein kinase-2 (RSK2) inhibitors. Bioorganic and Medicinal Chemistry, 2021, 41, 116220.	3.0	5
12	Evaluation of Thymidine Phosphorylase Inhibitors in Glioblastoma and Their Capacity for Temozolomide Potentiation. ACS Chemical Neuroscience, 2021, 12, 3477-3486.	3.5	2
13	Substituted pteridinones, pyrimidines, pyrrolopyrimidines, and purines as p90 ribosomal S6 protein kinase-2 (RSK2) inhibitors: Pharmacophore modeling data. Data in Brief, 2021, 38, 107433.	1.0	0
14	Substituted pteridinones as p90 ribosomal S6 protein kinase (RSK) inhibitors: A structure-activity study. Bioorganic and Medicinal Chemistry, 2020, 28, 115303.	3.0	11
15	10-N-heterocylic aryl-isoxazole-amides (AIMs) have robust anti-tumor activity against breast and brain cancer cell lines and useful fluorescence properties. Bioorganic and Medicinal Chemistry, 2020, 28, 115781.	3.0	7
16	Genetic Variants of Lipoprotein Lipase and Regulatory Factors Associated with Alzheimerâ€™s Disease Risk. International Journal of Molecular Sciences, 2020, 21, 8338.	4.1	13
17	Computational Modeling of NLRP3 Identifies Enhanced ATP Binding and Multimerization in Cryopyrin-Associated Periodic Syndromes. Frontiers in Immunology, 2020, 11, 584364.	4.8	9
18	Molecular docking of substituted pteridinones and pyrimidines to the ATP-binding site of the N-terminal domain of RSK2 and associated MM/GBSA and molecular field datasets. Data in Brief, 2020, 29, 105347.	1.0	22

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19	4â€Hydroxyâ€2â€nonenal attenuates 8â€oxoguanine DNA glycosylase 1 activity. Journal of Cellular Biochemistry, 2020, 121, 4887-4897.	2.6	10
20	Characterization and Optimization of the Novel Transient Receptor Potential Melastatin 2 Antagonist tatM2NX. Molecular Pharmacology, 2020, 97, 102-111.	2.3	11
21	Substituted oxindol-3-ylidenes as AMP-activated protein kinase (AMPK) inhibitors. European Journal of Medicinal Chemistry, 2020, 197, 112316.	5.5	13
22	Complement therapeutics meets nanomedicine: overcoming human complement activation and leukocyte uptake of nanomedicines with soluble domains of CD55. Journal of Controlled Release, 2019, 302, 181-189.	9.9	24
23	Establishment and Characterization of Four Novel Thyroid Cancer Cell Lines and PDX Models Expressing the RET/PTC1 Rearrangement, BRAFV600E, or RASQ61R as Drivers. Molecular Cancer Research, 2019, 17, 1036-1048.	3.4	10
24	Developing selective L-Amino Acid Transport 1 (LAT1) inhibitors: A Structure-Activity Relationship overview. Medical Research Archives, 2019, 7, .	0.2	4
25	The Nurr1 Ligand,1,1-bis(3â€²-Indolyl)-1-(p-Chlorophenyl)Methane, Modulates Glial Reactivity and Is Neuroprotective in MPTP-Induced Parkinsonism. Journal of Pharmacology and Experimental Therapeutics, 2018, 365, 636-651.	2.5	34
26	Identification and characterization of novel mutations implicated in congenital fibrinogen disorders. Research and Practice in Thrombosis and Haemostasis, 2018, 2, 800-811.	2.3	28
27	Development of Potent Pyrazolopyrimidinoneâ€Based WEE1 Inhibitors with Limited Singleâ€Agent Cytotoxicity for Cancer Therapy. ChemMedChem, 2018, 13, 1681-1694.	3.2	11
28	Isoxazolo[3,4-d]pyridazinones positively modulate the metabotropic glutamate subtypes 2 and 4. Bioorganic and Medicinal Chemistry, 2018, 26, 4797-4803.	3.0	2
29	Compensatory Expression of Nur77 and Nurr1 Regulates NF-ÎBâ€“Dependent Inflammatory Signaling in Astrocytes. Molecular Pharmacology, 2018, 94, 1174-1186.	2.3	40
30	Redox modulation of NQO1. PLoS ONE, 2018, 13, e0190717.	2.5	31
31	Redox Modulation of NQO1. FASEB Journal, 2018, 32, .	0.5	0
32	Characterizing Sirtuin 3 Deacetylase Affinity for Aldehyde Dehydrogenase 2. Chemical Research in Toxicology, 2017, 30, 785-793.	3.3	12
33	Dimeric isoxazolyl-1,4-dihydropyridines have enhanced binding at the multi-drug resistance transporter. Bioorganic and Medicinal Chemistry, 2017, 25, 3223-3234.	3.0	13
34	Selective Targeting of RSK Isoforms in Cancer. Trends in Cancer, 2017, 3, 302-312.	7.4	52
35	SIRT4 Is a Lysine Deacylase that Controls Leucine Metabolism and Insulin Secretion. Cell Metabolism, 2017, 25, 838-855.e15.	16.2	259
36	A Class of Reactive Acyl-CoA Species Reveals the Non-enzymatic Origins of Protein Acylation. Cell Metabolism, 2017, 25, 823-837.e8.	16.2	205

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37	Complement proteins bind to nanoparticle protein corona and undergo dynamic exchange in vivo. Nature Nanotechnology, 2017, 12, 387-393.	31.5	411
38	524 SASH1 is a novel gene involved in human pigmentation disorders. Journal of Investigative Dermatology, 2017, 137, S90.	0.7	0
39	Novel Molecule Exhibiting Selective Affinity for GABAA Receptor Subtypes. Scientific Reports, 2017, 7, 6230.	3.3	8
40	Chronic Ethanol Metabolism Inhibits Hepatic Mitochondrial Superoxide Dismutase via Lysine Acetylation. Alcoholism: Clinical and Experimental Research, 2017, 41, 1705-1714.	2.4	24
41	Evaluation of quantitative assays for the identification of direct signal transducer and activator of transcription 3 (STAT3) inhibitors. Oncotarget, 2016, 7, 77998-78008.	1.8	18
42	Targeting WEE1 Kinase in Cancer. Trends in Pharmacological Sciences, 2016, 37, 872-881.	8.7	294
43	407 Mutation in SASH1 causes human skin hyperpigmentation. Journal of Investigative Dermatology, 2016, 136, S72.	0.7	0
44	Strategies and Approaches of Targeting STAT3 for Cancer Treatment. ACS Chemical Biology, 2016, 11, 308-318.	3.4	297
45	Investigating the Sensitivity of NAD+-dependent Sirtuin Deacylation Activities to NADH. Journal of Biological Chemistry, 2016, 291, 7128-7141.	3.4	91
46	A WEE1 Inhibitor Analog of AZD1775 Maintains Synergy with Cisplatin and Demonstrates Reduced Single-Agent Cytotoxicity in Medulloblastoma Cells. ACS Chemical Biology, 2016, 11, 921-930.	3.4	42
47	Structure-Based Screen Identification of a Mammalian Ste20-like Kinase 4 (MST4) Inhibitor with Therapeutic Potential for Pituitary Tumors. Molecular Cancer Therapeutics, 2016, 15, 412-420.	4.1	16
48	Deacetylation by SIRT3 Relieves Inhibition of Mitochondrial Protein Function. , 2016, , 105-138.		3
49	A Novel Di-Leucine Motif at the N-Terminus of Human Organic Solute Transporter Beta Is Essential for Protein Association and Membrane Localization. PLoS ONE, 2016, 11, e0158269.	2.5	8
50	RSK3: A regulator of pathological cardiac remodeling. IUBMB Life, 2015, 67, 331-337.	3.4	16
51	ROCK and Rho. American Journal of Pathology, 2015, 185, 909-912.	3.8	17
52	AIMing towards improved antitumor efficacy. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 1765-1770.	2.2	8
53	Abstract LB-303: Identification of a mammalian sterile-20 like kinase 4 (MST4) inhibitor to target pituitary tumorigenesis. , 2015, , .		0
54	Abstract C195: A Wee1 inhibitor analog of AZD1775 demonstrates synergy with cisplatin with reduced single-agent toxicity in medulloblastoma. , 2015, , .		0

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55	Identification of 5â€² AMP-activated Kinase as a Target of Reactive Aldehydes during Chronic Ingestion of High Concentrations of Ethanol. Journal of Biological Chemistry, 2014, 289, 15449-15462.	3.4	50
56	Diindolylmethane Analogs Bind NR4A1 and Are NR4A1 Antagonists in Colon Cancer Cells. Molecular Endocrinology, 2014, 28, 1729-1739.	3.7	79
57	Lysine Glutarylation Is a Protein Posttranslational Modification Regulated by SIRT5. Cell Metabolism, 2014, 19, 605-617.	16.2	647
58	19-Substituted Benzoquinone Ansamycin Heat Shock Protein-90 Inhibitors: Biological Activity and Decreased Off-Target Toxicity. Molecular Pharmacology, 2014, 85, 849-857.	2.3	17
59	Integrated genomic analysis identifies the mitotic checkpoint kinase WEE1 as a novel therapeutic target in medulloblastoma. Molecular Cancer, 2014, 13, 72.	19.2	62
60	Allosteric Inhibitors of the Eya2 Phosphatase Are Selective and Inhibit Eya2-mediated Cell Migration. Journal of Biological Chemistry, 2014, 289, 16349-16361.	3.4	46
61	Oxidative stress-mediated aldehyde adduction of GRP78 in a mouse model of alcoholic liver disease: functional independence of ATPase activity and chaperone function. Free Radical Biology and Medicine, 2014, 73, 411-420.	2.9	40
62	Abstract 1788: 19-Substituted benzoquinone ansamycins. Hsp90 inhibitors with decreased off-target toxicity. , 2014, , .		0
63	Abstract 233: Prostacyclin analogs, iloprost and treprostinil, differentially influence proliferation of lung tumor cells. , 2014, , .		0
64	Glycation of Glutamate Cysteine Ligase by 2-Deoxy-d-Ribose and its Potential Impact on Chemoresistance in Glioblastoma. Neurochemical Research, 2013, 38, 1838-1849.	3.3	20
65	Increased carbonylation of the lipid phosphatase PTEN contributes to Akt2 activation in a murine model of early alcohol-induced steatosis. Free Radical Biology and Medicine, 2013, 65, 680-692.	2.9	66
66	ALDH16A1 is a novel non-catalytic enzyme that may be involved in the etiology of gout via proteinâ€“protein interactions with HPRT1. Chemico-Biological Interactions, 2013, 202, 22-31.	4.0	35
67	Comparative genomics, molecular evolution and computational modeling of ALDH1B1 and ALDH2. Chemico-Biological Interactions, 2013, 202, 11-21.	4.0	17
68	Identification of Functionally Relevant Lysine Residues That Modulate Human Farnesoid X Receptor Activation. Molecular Pharmacology, 2013, 83, 1078-1086.	2.3	6
69	Inhibition of Wee1 Sensitizes Cancer Cells to Antimetabolite Chemotherapeutics In Vitro and In Vivo, Independent of p53 Functionality. Molecular Cancer Therapeutics, 2013, 12, 2675-2684.	4.1	104
70	Abstract B102: Targeting the SIX1/EYA transcriptional complex as a potential anti-cancer therapy.. , 2013, , .		1
71	Post-Translational Oxidative Modification and Inactivation of Mitochondrial Complex I in Epileptogenesis. Journal of Neuroscience, 2012, 32, 11250-11258.	3.6	77
72	Oxidative Stress and the ER Stress Response in a Murine Model for Early-Stage Alcoholic Liver Disease. Journal of Toxicology, 2012, 2012, 1-12.	3.0	85

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73	Inhibition of Hydrogen peroxide signaling by 4-hydroxynonenal due to differential regulation of Akt1 and Akt2 contributes to decreases in cell survival and proliferation in hepatocellular carcinoma cells. Free Radical Biology and Medicine, 2012, 53, 1-11.	2.9	37
74	The role of glutathione in brain tumor drug resistance. Biochemical Pharmacology, 2012, 83, 1005-1012.	4.4	159
75	Characterization of 4-HNE Modified L-FABP Reveals Alterations in Structural and Functional Dynamics. PLoS ONE, 2012, 7, e38459.	2.5	51
76	4-Hydroxynonenal Inhibits SIRT3 via Thiol-Specific Modification. Chemical Research in Toxicology, 2011, 24, 651-662.	3.3	107
77	Posttranslational modification and regulation of glutamateâ€“cysteine ligase by the Î±,Î²-unsaturated aldehyde 4-hydroxy-2-nonenal. Free Radical Biology and Medicine, 2011, 50, 14-26.	2.9	54
78	2â€²,5â€²-Dihydroxychalcone-induced glutathione is mediated by oxidative stress and kinase signaling pathways. Free Radical Biology and Medicine, 2011, 51, 1146-1154.	2.9	22
79	Mechanismâ€Based Inhibition of Quinone Reductase 2 (NQO2): Selectivity for NQO2 over NQO1 and Structural Basis for Flavoprotein Inhibition. ChemBioChem, 2011, 12, 1203-1208.	2.6	20
80	A Mechanistic and Structural Analysis of the Inhibition of the 90-kDa Heat Shock Protein by the Benzoquinone and Hydroquinone Ansamycins. Molecular Pharmacology, 2011, 79, 823-832.	2.3	15
81	A Novel Missense Mutation in FGG (c.944C>A) Encodes for An Amino Acid Change (p.Ala315Asp) in the Gamma Chain of Fibrinogen Causing Hypofibrinogenemia and a Thrombotic Phenotype. Blood, 2011, 118, 856-856.	1.4	0
82	Manipulation of cellular GSH biosynthetic capacity via TAT-mediated protein transduction of wild-type or a dominant-negative mutant of glutamate cysteine ligase alters cell sensitivity to oxidant-induced cytotoxicity. Toxicology and Applied Pharmacology, 2010, 243, 35-45.	2.8	7
83	Structure, function, and post-translational regulation of the catalytic and modifier subunits of glutamate cysteine ligase. Molecular Aspects of Medicine, 2009, 30, 86-98.	6.4	330
84	Motor proteinâ€“dependent transport of AMPA receptors into spines during long-term potentiation. Nature Neuroscience, 2008, 11, 457-466.	14.8	233
85	In Vitro and in Silico Characterization of Peroxiredoxin 6 Modified by 4-Hydroxynonenal and 4-Oxononenal. Chemical Research in Toxicology, 2008, 21, 2289-2299.	3.3	47
86	Enzymatic Reduction and Glutathione Conjugation of Benzoquinone Ansamycin Heat Shock Protein 90 Inhibitors: Relevance for Toxicity and Mechanism of Action. Drug Metabolism and Disposition, 2008, 36, 2050-2057.	3.3	54
87	Brain-derived Neurotrophic Factor Regulates the Expression and Synaptic Delivery ofÎ±-Amino-3-hydroxy-5-methyl-4-isoxazole Propionic Acid Receptor Subunits in Hippocampal Neurons. Journal of Biological Chemistry, 2007, 282, 12619-12628.	3.4	212
88	Development of Indolequinone Mechanism-Based Inhibitors of NAD(P)H:Quinone Oxidoreductase 1 (NQO1):â€‰ NQO1 Inhibition and Growth Inhibitory Activity in Human Pancreatic MIA PaCa-2 Cancer Cells. Biochemistry, 2007, 46, 5941-5950.	2.5	42
89	Dual role of the exocyst in AMPA receptor targeting and insertion into the postsynaptic membrane. EMBO Journal, 2006, 25, 1623-1634.	7.8	130
90	The Bioreduction of a Series of Benzoquinone Ansamycins by NAD(P)H:Quinone Oxidoreductase 1 to More Potent Heat Shock Protein 90 Inhibitors, the Hydroquinone Ansamycins. Molecular Pharmacology, 2006, 70, 1194-1203.	2.3	60

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91	Formation of 17-Allylamino-Demethoxygeldanamycin (17-AAG) Hydroquinone by NAD(P)H:Quinone Oxidoreductase 1: Role of 17-AAG Hydroquinone in Heat Shock Protein 90 Inhibition. Cancer Research, 2005, 65, 10006-10015.	0.9	163
92	NMDA Receptor-Dependent Activation of the Small GTPase Rab5 Drives the Removal of Synaptic AMPA Receptors during Hippocampal LTD. Neuron, 2005, 45, 81-94.	8.1	194
93	Local Control of AMPA Receptor Trafficking at the Postsynaptic Terminal by a Small GTPase of the Rab Family. Journal of Biological Chemistry, 2004, 279, 43870-43878.	3.4	125
94	Independent Functions of hsp90 in Neurotransmitter Release and in the Continuous Synaptic Cycling of AMPA Receptors. Journal of Neuroscience, 2004, 24, 4758-4766.	3.6	79