

Bryan C Dickinson

List of Publications by Year in descending order

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Version: 2024-02-01

84
papers

7,173
citations

117625

34
h-index

64796

79
g-index

108
all docs

108
docs citations

108
times ranked

11218
citing authors

#	ARTICLE	IF	CITATIONS
1	Chemistry and biology of reactive oxygen species in signaling or stress responses. <i>Nature Chemical Biology</i> , 2011, 7, 504-511.	8.0	1,461
2	Aquaporin-3 mediates hydrogen peroxide uptake to regulate downstream intracellular signaling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 15681-15686.	7.1	595
3	A Targetable Fluorescent Probe for Imaging Hydrogen Peroxide in the Mitochondria of Living Cells. <i>Journal of the American Chemical Society</i> , 2008, 130, 9638-9639.	13.7	582
4	A Palette of Fluorescent Probes with Varying Emission Colors for Imaging Hydrogen Peroxide Signaling in Living Cells. <i>Journal of the American Chemical Society</i> , 2010, 132, 5906-5915.	13.7	477
5	Structure of papain-like protease from SARS-CoV-2 and its complexes with non-covalent inhibitors. <i>Nature Communications</i> , 2021, 12, 743.	12.8	297
6	Mitochondrial-targeted fluorescent probes for reactive oxygen species. <i>Current Opinion in Chemical Biology</i> , 2010, 14, 50-56.	6.1	288
7	Nox2 redox signaling maintains essential cell populations in the brain. <i>Nature Chemical Biology</i> , 2011, 7, 106-112.	8.0	248
8	Reactive Oxygen Species-Induced Actin Glutathionylation Controls Actin Dynamics in Neutrophils. <i>Immunity</i> , 2012, 37, 1037-1049.	14.3	174
9	Masitinib is a broad coronavirus 3CL inhibitor that blocks replication of SARS-CoV-2. <i>Science</i> , 2021, 373, 931-936.	12.6	173
10	Mitochondrial DNA damage: Molecular marker of vulnerable nigral neurons in Parkinson's disease. <i>Neurobiology of Disease</i> , 2014, 70, 214-223.	4.4	155
11	Preparation and use of MitoPY1 for imaging hydrogen peroxide in mitochondria of live cells. <i>Nature Protocols</i> , 2013, 8, 1249-1259.	12.0	144
12	A Nuclear-Localized Fluorescent Hydrogen Peroxide Probe for Monitoring Sirtuin-Mediated Oxidative Stress Responses In Vivo. <i>Chemistry and Biology</i> , 2011, 18, 943-948.	6.0	125
13	Evolution of a reverse transcriptase to map N1-methyladenosine in human messenger RNA. <i>Nature Methods</i> , 2019, 16, 1281-1288.	19.0	113
14	Evolution of a split RNA polymerase as a versatile biosensor platform. <i>Nature Chemical Biology</i> , 2017, 13, 432-438.	8.0	110
15	Programmable RNA-Guided RNA Effector Proteins Built from Human Parts. <i>Cell</i> , 2019, 178, 122-134.e12.	28.9	110
16	Glucose metabolism impacts the spatiotemporal onset and magnitude of HSC induction in vivo. <i>Blood</i> , 2013, 121, 2483-2493.	1.4	96
17	Experimental interrogation of the path dependence and stochasticity of protein evolution using phage-assisted continuous evolution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 9007-9012.	7.1	92
18	Targeted m ⁶ A Reader Proteins To Study Epitranscriptomic Regulation of Single RNAs. <i>Journal of the American Chemical Society</i> , 2018, 140, 11974-11981.	13.7	92

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19	Recent advances in hydrogen peroxide imaging for biological applications. <i>Cell and Bioscience</i> , 2014, 4, 64.	4.8	87
20	A red-emitting naphthofluorescein-based fluorescent probe for selective detection of hydrogen peroxide in living cells. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 5948-5950.	2.2	83
21	A system for the continuous directed evolution of proteases rapidly reveals drug-resistance mutations. <i>Nature Communications</i> , 2014, 5, 5352.	12.8	82
22	Avid interactions underlie the Lys63-linked polyubiquitin binding specificities observed for UBA domains. <i>Nature Structural and Molecular Biology</i> , 2009, 16, 883-889.	8.2	78
23	Cannabidiol inhibits SARS-CoV-2 replication through induction of the host ER stress and innate immune responses. <i>Science Advances</i> , 2022, 8, .	10.3	77
24	Active and dynamic mitochondrial S-depalmitoylation revealed by targeted fluorescent probes. <i>Nature Communications</i> , 2018, 9, 334.	12.8	73
25	S100B and APP Promote a Gliocentric Shift and Impaired Neurogenesis in Down Syndrome Neural Progenitors. <i>PLoS ONE</i> , 2011, 6, e22126.	2.5	73
26	Improvement of Human Keratinocyte Migration by a Redox Active Bioelectric Dressing. <i>PLoS ONE</i> , 2014, 9, e89239.	2.5	72
27	ABHD10 is an S-depalmitoylase affecting redox homeostasis through peroxiredoxin-5. <i>Nature Chemical Biology</i> , 2019, 15, 1232-1240.	8.0	72
28	A fluorescent probe for cysteine depalmitoylation reveals dynamic APT signaling. <i>Nature Chemical Biology</i> , 2017, 13, 150-152.	8.0	66
29	Dephosphorylation of Tyrosine 393 in Argonaute 2 by Protein Tyrosine Phosphatase 1B Regulates Gene Silencing in Oncogenic RAS-Induced Senescence. <i>Molecular Cell</i> , 2014, 55, 782-790.	9.7	65
30	Cadmium toxicity investigated at the physiological and biophysical levels under environmentally relevant conditions using the aquatic model plant <i>Ceratophyllum demersum</i> . <i>New Phytologist</i> , 2016, 210, 1244-1258.	7.3	62
31	Mitochondrial alarmins released by degenerating motor axon terminals activate perisynaptic Schwann cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E497-505.	7.1	59
32	H ₂ O ₂ Production Downstream of FLT3 Is Mediated by p22phox in the Endoplasmic Reticulum and Is Required for STAT5 Signalling. <i>PLoS ONE</i> , 2012, 7, e34050.	2.5	54
33	Selenoprotein H is an essential regulator of redox homeostasis that cooperates with p53 in development and tumorigenesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E5562-71.	7.1	49
34	A Population-Based Experimental Model for Protein Evolution: Effects of Mutation Rate and Selection Stringency on Evolutionary Outcomes. <i>Biochemistry</i> , 2013, 52, 1490-1499.	2.5	37
35	MnTE-2-PyP modulates thiol oxidation in a hydrogen peroxide-mediated manner in a human prostate cancer cell. <i>Free Radical Biology and Medicine</i> , 2016, 101, 32-43.	2.9	31
36	Michael addition-based probes for ratiometric fluorescence imaging of protein S-depalmitoylases in live cells and tissues. <i>Chemical Science</i> , 2017, 8, 7588-7592.	7.4	31

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37	Palmitoylation is required for TNF-R1 signaling. <i>Cell Communication and Signaling</i> , 2019, 17, 90.	6.5	30
38	Contingency and chance erase necessity in the experimental evolution of ancestral proteins. <i>ELife</i> , 2021, 10, .	6.0	30
39	Wnt5a signaling induced phosphorylation increases APT1 activity and promotes melanoma metastatic behavior. <i>ELife</i> , 2018, 7, .	6.0	29
40	Bisindolylmaleimide IX: A novel anti-SARS-CoV2 agent targeting viral main protease 3CLpro demonstrated by virtual screening pipeline and in-vitro validation assays. <i>Methods</i> , 2021, 195, 57-71.	3.8	29
41	Inhibitors of DHHC family proteins. <i>Current Opinion in Chemical Biology</i> , 2021, 65, 118-125.	6.1	29
42	Small Molecule-Inducible RNA-Targeting Systems for Temporal Control of RNA Regulation. <i>ACS Central Science</i> , 2020, 6, 1987-1996.	11.3	27
43	An animal model of Miller Fisher syndrome: Mitochondrial hydrogen peroxide is produced by the autoimmune attack of nerve terminals and activates Schwann cells. <i>Neurobiology of Disease</i> , 2016, 96, 95-104.	4.4	26
44	Endothelial Palmitoylation Cycling Coordinates Vessel Remodeling in Peripheral Artery Disease. <i>Circulation Research</i> , 2020, 127, 249-265.	4.5	26
45	A Phage-Assisted Continuous Selection Approach for Deep Mutational Scanning of Protein-Protein Interactions. <i>ACS Chemical Biology</i> , 2019, 14, 2757-2767.	3.4	23
46	Dysregulated mitochondrial and cytosolic tRNA m1A methylation in Alzheimer's disease. <i>Human Molecular Genetics</i> , 2022, 31, 1673-1680.	2.9	23
47	A Panel of Protease-Responsive RNA Polymerases Respond to Biochemical Signals by Production of Defined RNA Outputs in Live Cells. <i>Journal of the American Chemical Society</i> , 2015, 137, 15996-15999.	13.7	22
48	An oxidative fluctuation hypothesis of aging generated by imaging H2O2 levels in live <i>Caenorhabditis elegans</i> with altered lifespans. <i>Biochemical and Biophysical Research Communications</i> , 2015, 458, 896-900.	2.1	22
49	A Fluorescent Probe with Improved Water Solubility Permits the Analysis of Protein S-Depalmitoylation Activity in Live Cells. <i>Biochemistry</i> , 2018, 57, 221-225.	2.5	22
50	Development of a Split Esterase for Protein-Protein Interaction-Dependent Small-Molecule Activation. <i>ACS Central Science</i> , 2019, 5, 1768-1776.	11.3	22
51	Development of an Acrylamide-Based Inhibitor of Protein S-Acylation. <i>ACS Chemical Biology</i> , 2021, 16, 1546-1556.	3.4	22
52	Multidimensional Control of Cas9 by Evolved RNA Polymerase-Based Biosensors. <i>ACS Chemical Biology</i> , 2018, 13, 431-437.	3.4	21
53	Effects of cyclization on conformational dynamics and binding properties of Lys48-linked di-ubiquitin. <i>Protein Science</i> , 2007, 16, 369-378.	7.6	18
54	Two-photon fluorescence imaging of intracellular hydrogen peroxide with chemoselective fluorescent probes. <i>Journal of Biomedical Optics</i> , 2013, 18, 106002.	2.6	18

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55	Activity-Based Sensing of <i>S</i> -Depalmitoylases: Chemical Technologies and Biological Discovery. <i>Accounts of Chemical Research</i> , 2019, 52, 3029-3038.	15.6	18
56	Receptor Protein-tyrosine Phosphatase \pm Regulates Focal Adhesion Kinase Phosphorylation and ErbB2 Oncoprotein-mediated Mammary Epithelial Cell Motility. <i>Journal of Biological Chemistry</i> , 2013, 288, 36926-36935.	3.4	17
57	RNA Polymerase Tags To Monitor Multidimensional Protein-Protein Interactions Reveal Pharmacological Engagement of Bcl-2 Proteins. <i>Journal of the American Chemical Society</i> , 2017, 139, 11964-11972.	13.7	16
58	Evolution of C-Terminal Modification Tolerance in Full-Length and Split T7 RNA Polymerase Biosensors. <i>ChemBioChem</i> , 2019, 20, 1547-1553.	2.6	15
59	Antiviral evaluation of hydroxyethylamine analogs: Inhibitors of SARS-CoV-2 main protease (3CLpro), a virtual screening and simulation approach. <i>Bioorganic and Medicinal Chemistry</i> , 2021, 47, 116393.	3.0	15
60	Endogenous hydrogen peroxide production in the epithelium of the developing embryonic lens. <i>Molecular Vision</i> , 2014, 20, 458-67.	1.1	14
61	Phage-Assisted Continuous Evolution and Selection of Enzymes for Chemical Synthesis. <i>ACS Central Science</i> , 2021, 7, 1581-1590.	11.3	13
62	Cln5 represents a new type of cysteine-based <i>S</i> -depalmitoylase linked to neurodegeneration. <i>Science Advances</i> , 2022, 8, eabj8633.	10.3	12
63	Cannabidiol inhibits SARS-CoV-2 replication through induction of the host ER stress and innate immune responses.. <i>Science Advances</i> , 2022, , eabi6110.	10.3	11
64	Protective Effect of Inflammasome Activation by Hydrogen Peroxide in a Mouse Model of Septic Shock. <i>Critical Care Medicine</i> , 2017, 45, e184-e194.	0.9	9
65	Recent advances in developing and applying biosensors for synthetic biology. <i>Nano Futures</i> , 2019, 3, 042002.	2.2	9
66	CASowary: CRISPR-Cas13 guide RNA predictor for transcript depletion. <i>BMC Genomics</i> , 2022, 23, 172.	2.8	9
67	Programmable RNA Binding Proteins for Imaging and Therapeutics. <i>Biochemistry</i> , 2018, 57, 363-364.	2.5	7
68	Targeted m6A reader proteins to study the epitranscriptome. <i>Methods in Enzymology</i> , 2019, 621, 1-16.	1.0	5
69	A System for the Evolution of Protein-Protein Interaction Inducers. <i>ACS Synthetic Biology</i> , 2021, 10, 2096-2110.	3.8	5
70	Imaging Mitochondrial Hydrogen Peroxide in Living Cells. <i>Methods in Molecular Biology</i> , 2015, 1264, 231-243.	0.9	5
71	Measuring S-Depalmitoylation Activity In Vitro and In Live Cells with Fluorescent Probes. <i>Methods in Molecular Biology</i> , 2019, 2009, 99-109.	0.9	4
72	Development of Mild Chemical Catalysis Conditions for m ¹ A-to-m ⁶ A Rearrangement on RNA. <i>ACS Chemical Biology</i> , 2022, , .	3.4	4

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73	Split T7 RNA polymerase biosensors to study multiprotein interaction dynamics. <i>Methods in Enzymology</i> , 2020, 641, 413-432.	1.0	3
74	Methods for the directed evolution of biomolecular interactions. <i>Trends in Biochemical Sciences</i> , 2022, 47, 403-416.	7.5	3
75	Imaging Localised Hydrogen Peroxide Production in Living Systems. <i>Current Chemical Biology</i> , 2012, 6, 113-122.	0.5	2
76	Programmable technologies to manipulate gene expression at the RNA level. <i>Current Opinion in Chemical Biology</i> , 2021, 64, 27-37.	6.1	2
77	Plugging the leak. <i>Nature Chemical Biology</i> , 2015, 11, 831-832.	8.0	1
78	Controlling protein function with HCV protease. <i>Nature Methods</i> , 2018, 15, 489-490.	19.0	1
79	Editorial overview: Engineering, evolving, and designing proteins. <i>Current Opinion in Structural Biology</i> , 2021, 69, iii-v.	5.7	1
80	A High-Throughput Fluorescent Turn-On Assay for Inhibitors of DHHC Family Proteins. <i>ACS Chemical Biology</i> , 2022, 17, 2018-2023.	3.4	1
81	Expanding the Chemical Scope of RNA Base Editors. <i>Biochemistry</i> , 2019, 58, 3555-3556.	2.5	0
82	Imaging in Living Cells. <i>Methods in Molecular Biology</i> , 2021, 2275, 127-140.	0.9	0
83	A stop sign for RAS trafficking. <i>Nature Chemical Biology</i> , 2021, 17, 840-841.	8.0	0
84	Editorial Overview: Molecular synthetic biology: from understanding life to creating smart therapeutics. <i>Current Opinion in Chemical Biology</i> , 2021, 64, A1-A2.	6.1	0