Brian M Polster

List of Publications by Year
in descending order

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54 papers	3,940 citations	147801 31 h-index	168389 53 g-index
55 all docs	55 docs citations	55 times ranked	6941 citing authors

#	Article	IF	Citations
1	The Putative Drp1 Inhibitor mdivi-1 Is a Reversible Mitochondrial Complex I Inhibitor that Modulates Reactive Oxygen Species. Developmental Cell, 2017, 40, 583-594.e6.	7.0	406
2	Calpain I Induces Cleavage and Release of Apoptosis-inducing Factor from Isolated Mitochondria. Journal of Biological Chemistry, 2005, 280, 6447-6454.	3.4	375
3	Perilipin 5, a lipid droplet-associated protein, provides physical and metabolic linkage to mitochondria. Journal of Lipid Research, 2011, 52, 2159-2168.	4.2	365
4	Mitochondrial mechanisms of neural cell apoptosis. Journal of Neurochemistry, 2004, 90, 1281-1289.	3.9	295
5	Regulation of hydrogen peroxide production by brain mitochondria by calcium and Bax. Journal of Neurochemistry, 2002, 83, 220-228.	3.9	215
6	Targeting <scp>DDX</scp>3 with a small molecule inhibitor for lung cancer therapy. EMBO Molecular Medicine, 2015, 7, 648-669.	6.9	189
7	NADPH oxidase- and mitochondria-derived reactive oxygen species in proinflammatory microglial activation: a bipartisan affair?. Free Radical Biology and Medicine, 2014, 76, 34-46.	2.9	160
8	The dynamin-related GTPase Opa1 is required for glucose-stimulated ATP production in pancreatic beta cells. Molecular Biology of the Cell, 2011, 22, 2235-2245.	2.1	142
9	Guidelines on experimental methods to assess mitochondrial dysfunction in cellular models of neurodegenerative diseases. Cell Death and Differentiation, 2018, 25, 542-572.	11.2	120
10	Mitochondrial E3 ubiquitin ligase MARCH5 controls mitochondrial fission and cell sensitivity to stress-induced apoptosis through regulation of MiD49 protein. Molecular Biology of the Cell, 2016, 27, 349-359.	2.1	117
11	Idebenone and neuroprotection: antioxidant, pro-oxidant, or electron carrier?. Journal of Bioenergetics and Biomembranes, 2015, 47, 111-118.	2.3	99
12	Proapoptotic N-truncated BCL-xL protein activates endogenous mitochondrial channels in living synaptic terminals. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13590-13595.	7.1	95
13	Zinc-Dependent Multi-Conductance Channel Activity in Mitochondria Isolated from Ischemic Brain. Journal of Neuroscience, 2006, 26, 6851-6862.	3.6	93
14	Inhibition of Bax-Induced CytochromecRelease from Neural Cell and Brain Mitochondria by Dibucaine and Propranolol. Journal of Neuroscience, 2003, 23, 2735-2743.	3.6	73
15	Improved Mitochondrial Function with Diet-Induced Increase in Either Docosahexaenoic Acid or Arachidonic Acid in Membrane Phospholipids. PLoS ONE, 2012, 7, e34402.	2.5	72
16	Dietary supplementation with docosahexaenoic acid, but not eicosapentaenoic acid, dramatically alters cardiac mitochondrial phospholipid fatty acid composition and prevents permeability transition. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1555-1562.	1.0	68
17	Viral Bcl-2 homologs and their role in virus replication and associated diseases. Biochimica Et Biophysica Acta - Molecular Cell Research, 2004, 1644, 211-227.	4.1	67
18	Use of Potentiometric Fluorophores in the Measurement of Mitochondrial Reactive Oxygen Species. Methods in Enzymology, 2014, 547, 225-250.	1.0	62

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19	Low micromolar concentrations of the superoxide probe MitoSOX uncouple neural mitochondria and inhibit complex IV. Free Radical Biology and Medicine, 2015, 86, 250-258.	2.9	60
20	Reactive oxygen species regulation by AIF- and complex I-depleted brain mitochondria. Free Radical Biology and Medicine, 2009, 46, 939-947.	2.9	58
21	Quantitative imaging of mitochondrial and cytosolic free zinc levels in an in vitro model of ischemia/reperfusion. Journal of Bioenergetics and Biomembranes, 2012, 44, 253-263.	2.3	57
22	The RUNX2 Transcription Factor Negatively Regulates SIRT6 Expression to Alter Glucose Metabolism in Breast Cancer Cells. Journal of Cellular Biochemistry, 2015, 116, 2210-2226.	2.6	56
23	Investigation of Mitochondrial Dysfunction by Sequential Microplate-Based Respiration Measurements from Intact and Permeabilized Neurons. PLoS ONE, 2012, 7, e34465.	2.5	52
24	Cyclin D1 Represses Gluconeogenesis via Inhibition of the Transcriptional Coactivator PGC1Î±. Diabetes, 2014, 63, 3266-3278.	0.6	51
25	AIF, reactive oxygen species, and neurodegeneration: A â€œcomplexâ€•problem. Neurochemistry International, 2013, 62, 695-702.	3.8	50
26	Adaptation of microplateâ€based respirometry for hippocampal slices and analysis of respiratory capacity. Journal of Neuroscience Research, 2011, 89, 1979-1988.	2.9	47
27	Bax, along with Lipid Conspirators, Allows Cytochrome c to Escape Mitochondria. Molecular Cell, 2002, 10, 963-965.	9.7	41
28	Inhibition of Bcl-xL prevents pro-death actions of Î”N-Bcl-xL at the mitochondrial inner membrane during glutamate excitotoxicity. Cell Death and Differentiation, 2017, 24, 1963-1974.	11.2	38
29	Role of hypoxia in Diffuse Large B-cell Lymphoma: Metabolic repression and selective translation of HK2 facilitates development of DLBCL. Scientific Reports, 2018, 8, 744.	3.3	36
30	Magnesium Sulfate Protects Against the Bioenergetic Consequences of Chronic Glutamate Receptor Stimulation. PLoS ONE, 2013, 8, e79982.	2.5	35
31	Mitochondrial Precursor Signal Peptide Induces a Unique Permeability Transition and Release of Cytochrome c from Liver and Brain Mitochondria. Archives of Biochemistry and Biophysics, 2001, 386, 251-260.	3.0	34
32	Realâ€time visualization of cytoplasmic calpain activation and calcium deregulation in acute glutamate excitotoxicity. Journal of Neurochemistry, 2009, 110, 990-1004.	3.9	33
33	Idebenone Has Distinct Effects on Mitochondrial Respiration in Cortical Astrocytes Compared to Cortical Neurons Due to Differential NQO1 Activity. Journal of Neuroscience, 2020, 40, 4609-4619.	3.6	30
34	Parkin-independent mitophagy via Drp1-mediated outer membrane severing and inner membrane ubiquitination. Journal of Cell Biology, 2021, 220, .	5.2	29
35	Sex differences in the mitochondrial bioenergetics of astrocytes but not microglia at a physiologically relevant brain oxygen tension. Neurochemistry International, 2018, 117, 82-90.	3.8	24
36	Prenatal hypoxia impairs cardiac mitochondrial and ventricular function in guinea pig offspring in a sex-related manner. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2018, 315, R1232-R1241.	1.8	24

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37	Augmentation of Normal and Glutamate-Impaired Neuronal Respiratory Capacity by Exogenous Alternative Biofuels. Translational Stroke Research, 2013, 4, 643-651.	4.2	19
38	Comparing effects of CDK inhibition and E2F1/2 ablation on neuronal cell death pathways in vitro and after traumatic brain injury. Cell Death and Disease, 2018, 9, 1121.	6.3	17
39	Mapping mitochondrial respiratory chain deficiencies by respirometry: Beyond the Mito Stress Test. Experimental Neurology, 2020, 328, 113282.	4.1	16
40	The Non-Specific Drp1 Inhibitor Mdivi-1 Has Modest Biochemical Antioxidant Activity. Antioxidants, 2022, 11, 450.	5.1	15
41	Fetal Programming and Sexual Dimorphism of Mitochondrial Protein Expression and Activity of Hearts of Prenatally Hypoxic Guinea Pig Offspring. Oxidative Medicine and Cellular Longevity, 2019, 2019, 1-11.	4.0	13
42	Targeting breast cancer metabolism with a novel inhibitor of mitochondrial ATP synthesis. Oncotarget, 2020, 11, 3863-3885.	1.8	13
43	Permeability transition pore-dependent and PARP-mediated depletion of neuronal pyridine nucleotides during anoxia and glucose deprivation. Journal of Bioenergetics and Biomembranes, 2015, 47, 53-61.	2.3	12
44	ALS/FTD mutations in UBQLN2 are linked to mitochondrial dysfunction through loss-of-function in mitochondrial protein import. Human Molecular Genetics, 2021, 30, 1230-1246.	2.9	10
45	Mithramycin selectively attenuates DNA-damage-induced neuronal cell death. Cell Death and Disease, 2020, 11, 587.	6.3	8
46	Mitochondria in the nervous system: From health to disease, Part I. Neurochemistry International, 2017, 109, 1-4.	3.8	7
47	Platelets in preeclamptic pregnancies fail to exhibit the decrease in mitochondrial oxygen consumption rate seen in normal pregnancies. Bioscience Reports, 2018, 38, .	2.4	7
48	Rapid Detection of an ABT-737-Sensitive Primed for Death State in Cells Using Microplate-Based Respirometry. PLoS ONE, 2012, 7, e42487.	2.5	7
49	Mitochondria in the nervous system: From health to disease, part II. Neurochemistry International, 2018, 117, 1-4.	3.8	6
50	Solid Phase Synthesis of Dual Labeled Peptides: Development of Cell Permeable Calpain Specific Substrates. International Journal of Peptide Research and Therapeutics, 2007, 13, 83-91.	1.9	4
51	Protein Aggregation and Multiple Organelle Damage After Brain Ischemia. , 2012, , 101-116.		3
52	Mitochondrial Mechanisms of Neural Cell Death in Cerebral Ischemia. , 2011, , 153-163.		2
53	An inÂvitro model yields â€˜importinâ€™ new insights into chronic traumatic encephalopathy: damaged astrocytes stop â€˜thrombospondinâ€™ to the injury. Journal of Neurochemistry, 2017, 140, 531-535.	3.9	2
54	Intrinsic epigenetic control of angiogenesis in induced pluripotent stem cell-derived endothelium regulates vascular regeneration. Npj Regenerative Medicine, 2022, 7, 28.	5.2	2