

Blaine R Roberts

List of Publications by Year in descending order

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Version: 2024-02-01

95
papers

4,734
citations

94269

37
h-index

106150

65
g-index

106
all docs

106
docs citations

106
times ranked

6973
citing authors

#	ARTICLE	IF	CITATIONS
1	Tau deficiency induces parkinsonism with dementia by impairing APP-mediated iron export. <i>Nature Medicine</i> , 2012, 18, 291-295.	15.2	491
2	The role of metallobiology and amyloid- β peptides in Alzheimer's disease. <i>Journal of Neurochemistry</i> , 2012, 120, 149-166.	2.1	233
3	Selenium, selenoproteins and neurodegenerative diseases. <i>Metallomics</i> , 2015, 7, 1213-1228.	1.0	210
4	Glutathione peroxidase 4: a new player in neurodegeneration?. <i>Molecular Psychiatry</i> , 2017, 22, 328-335.	4.1	196
5	Utility of an improved model of amyloid-beta ($A\beta_{1-42}$) toxicity in <i>Caenorhabditis elegans</i> for drug screening for Alzheimer's disease. <i>Molecular Neurodegeneration</i> , 2012, 7, 57.	4.4	188
6	Oral Treatment with Cull(atism) Increases Mutant SOD1 In Vivo but Protects Motor Neurons and Improves the Phenotype of a Transgenic Mouse Model of Amyotrophic Lateral Sclerosis. <i>Journal of Neuroscience</i> , 2014, 34, 8021-8031.	1.7	161
7	The hypoxia imaging agent Cull(atism) is neuroprotective and improves motor and cognitive functions in multiple animal models of Parkinson's disease. <i>Journal of Experimental Medicine</i> , 2012, 209, 837-854.	4.2	151
8	Copper delivery to the CNS by CuATSM effectively treats motor neuron disease in SODG93A mice co-expressing the Copper-Chaperone-for-SOD. <i>Neurobiology of Disease</i> , 2016, 89, 1-9.	2.1	126
9	Biochemically-defined pools of amyloid- β in sporadic Alzheimer's disease: correlation with amyloid PET. <i>Brain</i> , 2017, 140, 1486-1498.	3.7	123
10	Structural Characterization of Zinc-deficient Human Superoxide Dismutase and Implications for ALS. <i>Journal of Molecular Biology</i> , 2007, 373, 877-890.	2.0	122
11	Changes in plasma amyloid beta in a longitudinal study of aging and Alzheimer's disease. <i>Alzheimer's and Dementia</i> , 2014, 10, 53-61.	0.4	114
12	The <i>Caenorhabditis elegans</i> $A\beta_{1-42}$ Model of Alzheimer Disease Predominantly Expresses $A\beta_{3-42}$. <i>Journal of Biological Chemistry</i> , 2009, 284, 22697-22702.	1.6	108
13	An iron-dopamine index predicts risk of parkinsonian neurodegeneration in the substantia nigra pars compacta. <i>Chemical Science</i> , 2014, 5, 2160-2169.	3.7	98
14	Ammonium hydroxide treatment of $A\beta$ produces an aggregate free solution suitable for biophysical and cell culture characterization. <i>PeerJ</i> , 2013, 1, e73.	0.9	93
15	Copper Promotes the Trafficking of the Amyloid Precursor Protein. <i>Journal of Biological Chemistry</i> , 2011, 286, 8252-8262.	1.6	90
16	Trace element-protein interactions in endolymph from the inner ear of fish: implications for environmental reconstructions using fish otolith chemistry. <i>Metallomics</i> , 2017, 9, 239-249.	1.0	89
17	Subcellular compartmentalisation of copper, iron, manganese, and zinc in the Parkinson's disease brain. <i>Metallomics</i> , 2017, 9, 1447-1455.	1.0	89
18	Direct in vivo imaging of ferrous iron dyshomeostasis in ageing <i>Caenorhabditis elegans</i> . <i>Chemical Science</i> , 2015, 6, 2952-2962.	3.7	86

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19	The Neurobiology and Age-Related Prevalence of the ϵ 4 Allele of Apolipoprotein E in Alzheimer's Disease Cohorts. <i>Journal of Molecular Neuroscience</i> , 2016, 60, 316-324.	1.1	82
20	Decreased Plasma Iron in Alzheimer's Disease Is Due to Transferrin Desaturation. <i>ACS Chemical Neuroscience</i> , 2015, 6, 398-402.	1.7	75
21	Cull(atsm) improves the neurological phenotype and survival of SOD1 ^{G93A} mice and selectively increases enzymatically active SOD1 in the spinal cord. <i>Scientific Reports</i> , 2017, 7, 42292.	1.6	70
22	Characterization and Identification of Dityrosine Cross-Linked Peptides Using Tandem Mass Spectrometry. <i>Analytical Chemistry</i> , 2017, 89, 6136-6145.	3.2	70
23	Visualising mouse neuroanatomy and function by metal distribution using laser ablation-inductively coupled plasma-mass spectrometry imaging. <i>Chemical Science</i> , 2015, 6, 5383-5393.	3.7	69
24	Supranutritional Sodium Selenate Supplementation Delivers Selenium to the Central Nervous System: Results from a Randomized Controlled Pilot Trial in Alzheimer's Disease. <i>Neurotherapeutics</i> , 2019, 16, 192-202.	2.1	69
25	Stabilization of Nontoxic A β -Oligomers: Insights into the Mechanism of Action of Hydroxyquinolines in Alzheimer's Disease. <i>Journal of Neuroscience</i> , 2015, 35, 2871-2884.	1.7	67
26	Laser ablation-inductively coupled plasma-mass spectrometry imaging of white and gray matter iron distribution in Alzheimer's disease frontal cortex. <i>NeuroImage</i> , 2016, 137, 124-131.	2.1	57
27	Metalloproteomics: principles, challenges and applications to neurodegeneration. <i>Frontiers in Aging Neuroscience</i> , 2013, 5, 35.	1.7	56
28	Selenium Levels in Serum, Red Blood Cells, and Cerebrospinal Fluid of Alzheimer's Disease Patients: A Report from the Australian Imaging, Biomarker & Lifestyle Flagship Study of Ageing (AIBL). <i>Journal of Alzheimer's Disease</i> , 2017, 57, 183-193.	1.2	54
29	Marked Age-Related Changes in Brain Iron Homeostasis in Amyloid Protein Precursor Knockout Mice. <i>Neurotherapeutics</i> , 2018, 15, 1055-1062.	2.1	53
30	Ceruloplasmin and β 2-amyloid precursor protein confer neuroprotection in traumatic brain injury and lower neuronal iron. <i>Free Radical Biology and Medicine</i> , 2014, 69, 331-337.	1.3	49
31	The ϵ 4 Allele Is Associated with Lower Selenium Levels in the Brain: Implications for Alzheimer's Disease. <i>ACS Chemical Neuroscience</i> , 2017, 8, 1459-1464.	1.7	48
32	The inner ear proteome of fish. <i>FEBS Journal</i> , 2019, 286, 66-81.	2.2	48
33	Longitudinal Analysis of Serum Copper and Ceruloplasmin in Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2013, 34, 171-182.	1.2	46
34	Synthetic dityrosine-linked β 2-amyloid dimers form stable, soluble, neurotoxic oligomers. <i>Chemical Science</i> , 2013, 4, 4449.	3.7	44
35	Small Amphipathic Molecules Modulate Secondary Structure and Amyloid Fibril-forming Kinetics of Alzheimer Disease Peptide A β 1-42. <i>Journal of Biological Chemistry</i> , 2012, 287, 16947-16954.	1.6	41
36	Oxidized and synchrotron cleaved structures of the disulfide redox center in the N-terminal domain of <i>Salmonella typhimurium</i> AhpF. <i>Protein Science</i> , 2005, 14, 2414-2420.	3.1	39

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37	Profiling the iron, copper and zinc content in primary neuron and astrocyte cultures by rapid online quantitative size exclusion chromatography-inductively coupled plasma-mass spectrometry. <i>Metallomics</i> , 2013, 5, 1656.	1.0	39
38	Rubidium and potassium levels are altered in Alzheimer's disease brain and blood but not in cerebrospinal fluid. <i>Acta Neuropathologica Communications</i> , 2016, 4, 119.	2.4	39
39	Antisense oligonucleotide therapy reduces seizures and extends life span in an SCN2A gain-of-function epilepsy model. <i>Journal of Clinical Investigation</i> , 2021, 131, .	3.9	38
40	Cu,Zn-Superoxide Dismutase Increases Toxicity of Mutant and Zinc-deficient Superoxide Dismutase by Enhancing Protein Stability*. <i>Journal of Biological Chemistry</i> , 2010, 285, 33885-33897.	1.6	37
41	Decreased Copper in Alzheimer's Disease Brain Is Predominantly in the Soluble Extractable Fraction. <i>International Journal of Alzheimer's Disease</i> , 2013, 2013, 1-7.	1.1	36
42	Decreased serum zinc is an effect of ageing and not Alzheimer's disease. <i>Metallomics</i> , 2014, 6, 1216-1219.	1.0	34
43	Neonatal iron supplementation potentiates oxidative stress, energetic dysfunction and neurodegeneration in the R6/2 mouse model of Huntington's disease. <i>Redox Biology</i> , 2015, 4, 363-374.	3.9	31
44	Progress towards a consensus on biomarkers for Alzheimer's disease: a review of peripheral analytes. <i>Biomarkers in Medicine</i> , 2013, 7, 641-662.	0.6	30
45	Lead and manganese levels in serum and erythrocytes in Alzheimer's disease and mild cognitive impairment: results from the Australian Imaging, Biomarkers and Lifestyle Flagship Study of Ageing. <i>Metallomics</i> , 2016, 8, 628-632.	1.0	30
46	ZnII(atm) is protective in amyotrophic lateral sclerosis model mice via a copper delivery mechanism. <i>Neurobiology of Disease</i> , 2015, 81, 20-24.	2.1	28
47	Accurate biometal quantification per individual <i>Caenorhabditis elegans</i> . <i>Analyst</i> , 2016, 141, 1434-1439.	1.7	27
48	Near-Infrared Fluorescence Imaging of Apoptotic Neuronal Cell Death in a Live Animal Model of Prion Disease. <i>ACS Chemical Neuroscience</i> , 2010, 1, 720-727.	1.7	25
49	Small angle X-ray scattering analysis of Cu ²⁺ -induced oligomers of the Alzheimer's amyloid β peptide. <i>Metallomics</i> , 2015, 7, 536-543.	1.0	25
50	Regional iron distribution and soluble ferroprotein profiles in the healthy human brain. <i>Progress in Neurobiology</i> , 2020, 186, 101744.	2.8	25
51	Acute phase markers in CSF reveal inflammatory changes in Alzheimer's disease that intersect with pathology, APOE ϵ 4, sex and age. <i>Progress in Neurobiology</i> , 2021, 198, 101904.	2.8	25
52	Quantification of N-terminal amyloid- β isoforms reveals isomers are the most abundant form of the amyloid- β peptide in sporadic Alzheimer's disease. <i>Brain Communications</i> , 2021, 3, fcab028.	1.5	25
53	Greater Circulating Copper Concentrations and Copper/Zinc Ratios are Associated with Lower Psychological Distress, But Not Cognitive Performance, in a Sample of Australian Older Adults. <i>Nutrients</i> , 2019, 11, 2503.	1.7	19
54	Cadmium stress dictates central carbon flux and alters membrane composition in <i>Streptococcus pneumoniae</i> . <i>Communications Biology</i> , 2020, 3, 694.	2.0	19

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55	A six-metabolite panel as potential blood-based biomarkers for Parkinson's disease. <i>Npj Parkinson's Disease</i> , 2021, 7, 94.	2.5	19
56	Standards for Quantitative Metalloproteomic Analysis Using Size Exclusion ICP-MS. <i>Journal of Visualized Experiments</i> , 2016, , .	0.2	17
57	Golgi-Dependent Copper Homeostasis Sustains Synaptic Development and Mitochondrial Content. <i>Journal of Neuroscience</i> , 2021, 41, 215-233.	1.7	17
58	Expanding beyond ICP-MS to better understand selenium biochemistry. <i>Metallomics</i> , 2019, 11, 1974-1983.	1.0	16
59	The prion protein regulates beta-amyloid-mediated self-renewal of neural stem cells in vitro. <i>Stem Cell Research and Therapy</i> , 2015, 6, 60.	2.4	13
60	Characterization of the metal status of natively purified alpha-synuclein from human blood, brain tissue, or recombinant sources using size exclusion ICP-MS reveals no significant binding of Cu, Fe or Zn. <i>Metallomics</i> , 2019, 11, 128-140.	1.0	13
61	Early existence and biochemical evolution characterise acutely synaptotoxic PrPSc. <i>PLoS Pathogens</i> , 2019, 15, e1007712.	2.1	13
62	The Emerging Role of Metalloproteomics in Alzheimer's Disease Research. <i>Methods in Molecular Biology</i> , 2016, 1303, 379-389.	0.4	12
63	Direct determination of zinc in plasma by graphite furnace atomic absorption spectrometry using palladium/magnesium and EDTA matrix modification with high temperature pyrolysis. <i>Journal of Analytical Atomic Spectrometry</i> , 2017, 32, 843-847.	1.6	12
64	Molecular Aspects of a Robust Assay for Ferroxidase Function of Ceruloplasmin. <i>Inorganic Chemistry</i> , 2017, 56, 5275-5284.	1.9	12
65	Selenium Status Is Not Associated with Cognitive Performance: A Cross-Sectional Study in 154 Older Australian Adults. <i>Nutrients</i> , 2018, 10, 1847.	1.7	12
66	Traumatic brain injury induces elevation of Co in the human brain. <i>Metallomics</i> , 2015, 7, 66-70.	1.0	11
67	Prion acute synaptotoxicity is largely driven by protease-resistant PrPSc species. <i>PLoS Pathogens</i> , 2018, 14, e1007214.	2.1	11
68	Copper Isotope Compositions of Superoxide Dismutase and Metallothionein from Post-Mortem Human Frontal Cortex. <i>Inorganics</i> , 2019, 7, 86.	1.2	11
69	Establishing Signature Fragments for Identification and Sequencing of Dityrosine Cross-Linked Peptides Using Ultraviolet Photodissociation Mass Spectrometry. <i>Analytical Chemistry</i> , 2019, 91, 12129-12133.	3.2	11
70	Increased glutaminyl cyclase activity in brains of Alzheimer's disease individuals. <i>Journal of Neurochemistry</i> , 2021, 156, 979-987.	2.1	11
71	Quantitative Phosphoproteomics Reveals Extensive Protein Phosphorylation Dysregulation in the Cerebral Cortex of Huntington's Disease Mice Prior to Onset of Symptoms. <i>Molecular Neurobiology</i> , 2022, 59, 2456-2471.	1.9	11
72	The influence of the ethane-1,2-diamine ligand on the activity of a monofunctional platinum complex. <i>Journal of Inorganic Biochemistry</i> , 2017, 177, 328-334.	1.5	10

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73	In situ 3D visualization of biomineralization matrix proteins. <i>Journal of Structural Biology</i> , 2020, 209, 107448.	1.3	10
74	Utilizing Ion Mobility-Mass Spectrometry to Investigate the Unfolding Pathway of Cu/Zn Superoxide Dismutase. <i>Frontiers in Chemistry</i> , 2021, 9, 614595.	1.8	10
75	Citrullination of Amyloid- β Peptides in Alzheimer's Disease. <i>ACS Chemical Neuroscience</i> , 2021, 12, 3719-3732.	1.7	10
76	Guanidine hydrochloride denaturation of dopamine-induced α -synuclein oligomers: A small-angle X-ray scattering study. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 10-21.	1.5	9
77	Choice of mobile phase: Implications for size exclusion chromatography-inductively coupled plasma-mass spectrometry analyses of copper, zinc and iron metalloproteins. <i>Journal of Chromatography A</i> , 2020, 1616, 460806.	1.8	9
78	Optimizing red blood cell protein extraction for biomarker quantitation with mass spectrometry. <i>Analytical and Bioanalytical Chemistry</i> , 2020, 412, 1879-1892.	1.9	9
79	Fluphenazine-HCl and Epigallocatechin Gallate Modulate the Rate of Formation and Structural Properties of Apolipoprotein C-II Amyloid Fibrils. <i>Biochemistry</i> , 2015, 54, 3831-3838.	1.2	8
80	Profiling changes to natively-bound metals during <i>Caenorhabditis elegans</i> development. <i>RSC Advances</i> , 2016, 6, 113689-113693.	1.7	8
81	Zinc Transporter-3 Knockout Mice Demonstrate Age-Dependent Alterations in the Metalloproteome. <i>International Journal of Molecular Sciences</i> , 2020, 21, 839.	1.8	8
82	Differential protein expression due to Se deficiency and Se toxicity in rat liver. <i>Journal of Nutritional Biochemistry</i> , 2021, 98, 108831.	1.9	8
83	The Neuroinflammatory Acute Phase Response in Parkinsonian-Related Disorders. <i>Movement Disorders</i> , 2022, 37, 993-1003.	2.2	8
84	Enhanced ion mobility resolution of A β isomers from human brain using high-resolution demultiplexing software. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 5683-5693.	1.9	8
85	Human glutaredoxin-1 can transfer copper to isolated metal binding domains of the P1B-type ATPase, ATP7B. <i>Scientific Reports</i> , 2020, 10, 4157.	1.6	7
86	Sulfur- and phosphorus-standardized metal quantification of biological specimens using inductively coupled plasma mass spectrometry. <i>STAR Protocols</i> , 2022, 3, 101334.	0.5	7
87	GH18 endo- β -N-acetylglucosaminidases use distinct mechanisms to process hybrid-type N-linked glycans. <i>Journal of Biological Chemistry</i> , 2021, 297, 101011.	1.6	6
88	Rapid Generation of Dityrosine Cross-linked A β Oligomers via Cu-Redox Cycling. <i>Methods in Molecular Biology</i> , 2012, 849, 3-10.	0.4	6
89	Analysis of plasma proteins using 2D gels and novel fluorescent probes: in search of blood based biomarkers for Alzheimer's disease. <i>Proteome Science</i> , 2022, 20, 2.	0.7	6
90	Analysis of Trace Elements and Metalloproteins in Fractionated Human Brain Samples Using Size Exclusion Inductively Coupled Mass Spectrometry. <i>Neuroinformatics</i> , 2017, , 119-125.	0.2	3

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91	Quantification of metallothionein-III in brain tissues using liquid chromatography tandem mass spectrometry. <i>Analytical Biochemistry</i> , 2021, 630, 114326.	1.1	3
92	Thioesterase superfamily member 1 undergoes stimulus-coupled conformational reorganization to regulate metabolism in mice. <i>Nature Communications</i> , 2021, 12, 3493.	5.8	2
93	PrPSc Oligomerization Appears Dynamic, Quickly Engendering Inherent M1000 Acute Synaptotoxicity. <i>Biophysical Journal</i> , 2020, 119, 128-141.	0.2	1
94	Why collaborating with industry can provide a career boost. <i>Nature</i> , 2019, , .	13.7	1
95	Characterising the brain metalloproteome in Down syndrome patients with concomitant Alzheimer's pathology. <i>Metallomics</i> , 2020, 12, 114-132.	1.0	0