Blaine R Roberts

List of Publications by Year
in descending order

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	Quantitative Phosphoproteomics Reveals Extensive Protein Phosphorylation Dysregulation in the Cerebral Cortex of Huntingtonâ€™s Disease Mice Prior to Onset of Symptoms. Molecular Neurobiology, 2022, 59, 2456-2471.	1.9	11
2	Analysis of plasma proteins using 2D gels and novel fluorescent probes: in search of blood based biomarkers for Alzheimerâ€™s disease. Proteome Science, 2022, 20, 2.	0.7	6
3	The Neuroinflammatory Acute Phase Response in Parkinsonianâ€Related Disorders. Movement Disorders, 2022, 37, 993-1003.	2.2	8
4	Enhanced ion mobility resolution of Abeta isomers from human brain using high-resolution demultiplexing software. Analytical and Bioanalytical Chemistry, 2022, 414, 5683-5693.	1.9	8
5	Sulfur- and phosphorus-standardized metal quantification of biological specimens using inductively coupled plasma mass spectrometry. STAR Protocols, 2022, 3, 101334.	0.5	7
6	Increased glutaminyl cyclase activity in brains of Alzheimerâ€™s disease individuals. Journal of Neurochemistry, 2021, 156, 979-987.	2.1	11
7	Acute phase markers in CSF reveal inflammatory changes in Alzheimerâ€™s disease that intersect with pathology, APOE Îµ4, sex and age. Progress in Neurobiology, 2021, 198, 101904.	2.8	25
8	Golgi-Dependent Copper Homeostasis Sustains Synaptic Development and Mitochondrial Content. Journal of Neuroscience, 2021, 41, 215-233.	1.7	17
9	Utilizing Ion Mobility-Mass Spectrometry to Investigate the Unfolding Pathway of Cu/Zn Superoxide Dismutase. Frontiers in Chemistry, 2021, 9, 614595.	1.8	10
10	Quantification of N-terminal amyloid-Î² isoforms reveals isomers are the most abundant form of the amyloid-Î² peptide in sporadic Alzheimerâ€™s disease. Brain Communications, 2021, 3, fcab028.	1.5	25
11	Thioesterase superfamily member 1 undergoes stimulus-coupled conformational reorganization to regulate metabolism in mice. Nature Communications, 2021, 12, 3493.	5.8	2
12	GH18 endo-Î²-N-acetylglucosaminidases use distinct mechanisms to process hybrid-type N-linked glycans. Journal of Biological Chemistry, 2021, 297, 101011.	1.6	6
13	Citrullination of Amyloid-Î² Peptides in Alzheimerâ€™s Disease. ACS Chemical Neuroscience, 2021, 12, 3719-3732.	1.7	10
14	Quantification of metallothionein-III in brain tissues using liquid chromatography tandem mass spectrometry. Analytical Biochemistry, 2021, 630, 114326.	1.1	3
15	Differential protein expression due to Se deficiency and Se toxicity in rat liver. Journal of Nutritional Biochemistry, 2021, 98, 108831.	1.9	8
16	A six-metabolite panel as potential blood-based biomarkers for Parkinsonâ€™s disease. Npj Parkinson's Disease, 2021, 7, 94.	2.5	19
17	Antisense oligonucleotide therapy reduces seizures and extends life span in an SCN2A gain-of-function epilepsy model. Journal of Clinical Investigation, 2021, 131, .	3.9	38
18	Regional iron distribution and soluble ferroprotein profiles in the healthy human brain. Progress in Neurobiology, 2020, 186, 101744.	2.8	25

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19	Characterising the brain metalloproteome in Down syndrome patients with concomitant Alzheimer's pathology. Metallomics, 2020, 12, 114-132.	1.0	0
20	Choice of mobile phase: Implications for size exclusion chromatography-inductively coupled plasma-mass spectrometry analyses of copper, zinc and iron metalloproteins. Journal of Chromatography A, 2020, 1616, 460806.	1.8	9
21	Cadmium stress dictates central carbon flux and alters membrane composition in Streptococcus pneumoniae. Communications Biology, 2020, 3, 694.	2.0	19
22	PrPSc Oligomerization Appears Dynamic, Quickly Engendering Inherent M1000 Acute Synaptotoxicity. Biophysical Journal, 2020, 119, 128-141.	0.2	1
23	Human glutaredoxin-1 can transfer copper to isolated metal binding domains of the P1B-type ATPase, ATP7B. Scientific Reports, 2020, 10, 4157.	1.6	7
24	Optimizing red blood cell protein extraction for biomarker quantitation with mass spectrometry. Analytical and Bioanalytical Chemistry, 2020, 412, 1879-1892.	1.9	9
25	In situ 3D visualization of biomineralization matrix proteins. Journal of Structural Biology, 2020, 209, 107448.	1.3	10
26	Zinc Transporter-3 Knockout Mice Demonstrate Age-Dependent Alterations in the Metalloproteome. International Journal of Molecular Sciences, 2020, 21, 839.	1.8	8
27	Copper Isotope Compositions of Superoxide Dismutase and Metallothionein from Post-Mortem Human Frontal Cortex. Inorganics, 2019, 7, 86.	1.2	11
28	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. Nutrients, 2019, 11, 2503.	1.7	19
29	Establishing Signature Fragments for Identification and Sequencing of Dityrosine Cross-Linked Peptides Using Ultraviolet Photodissociation Mass Spectrometry. Analytical Chemistry, 2019, 91, 12129-12133.	3.2	11
30	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. Metallomics, 2019, 11, 128-140.	1.0	13
31	Early existence and biochemical evolution characterise acutely synaptotoxic PrPSc. PLoS Pathogens, 2019, 15, e1007712.	2.1	13
32	Supranutritional Sodium Selenate Supplementation Delivers Selenium to the Central Nervous System: Results from a Randomized Controlled Pilot Trial in Alzheimer's Disease. Neurotherapeutics, 2019, 16, 192-202.	2.1	69
33	The inner ear proteome of fish. FEBS Journal, 2019, 286, 66-81.	2.2	48
34	Expanding beyond ICP-MS to better understand selenium biochemistry. Metallomics, 2019, 11, 1974-1983.	1.0	16
35	Why collaborating with industry can provide a career boost. Nature, 2019, , .	13.7	1
36	Selenium Status Is Not Associated with Cognitive Performance: A Cross-Sectional Study in 154 Older Australian Adults. Nutrients, 2018, 10, 1847.	1.7	12

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37	Marked Age-Related Changes in Brain Iron Homeostasis in Amyloid Protein Precursor Knockout Mice. Neurotherapeutics, 2018, 15, 1055-1062.	2.1	53
38	Prion acute synaptotoxicity is largely driven by protease-resistant PrPSc species. PLoS Pathogens, 2018, 14, e1007214.	2.1	11
39	Selenium Levels in Serum, Red Blood Cells, and Cerebrospinal Fluid of Alzheimerâ€™s Disease Patients: A Report from the Australian Imaging, Biomarker & Lifestyle Flagship Study of Ageing (AIBL). Journal of Alzheimer's Disease, 2017, 57, 183-193.	1.2	54
40	CuII(atsm) improves the neurological phenotype and survival of SOD1G93A mice and selectively increases enzymatically active SOD1 in the spinal cord. Scientific Reports, 2017, 7, 42292.	1.6	70
41	Direct determination of zinc in plasma by graphite furnace atomic absorption spectrometry using palladium/magnesium and EDTA matrix modification with high temperature pyrolysis. Journal of Analytical Atomic Spectrometry, 2017, 32, 843-847.	1.6	12
42	Molecular Aspects of a Robust Assay for Ferroxidase Function of Ceruloplasmin. Inorganic Chemistry, 2017, 56, 5275-5284.	1.9	12
43	Analysis of Trace Elements and Metalloproteins in Fractionated Human Brain Samples Using Size Exclusion Inductively Coupled Mass Spectrometry. Neuromethods, 2017, , 119-125.	0.2	3
44	The APOE Î¼4 Allele Is Associated with Lower Selenium Levels in the Brain: Implications for Alzheimerâ€™s Disease. ACS Chemical Neuroscience, 2017, 8, 1459-1464.	1.7	48
45	Characterization and Identification of Dityrosine Cross-Linked Peptides Using Tandem Mass Spectrometry. Analytical Chemistry, 2017, 89, 6136-6145.	3.2	70
46	Biochemically-defined pools of amyloid-Î² in sporadic Alzheimerâ€™s disease: correlation with amyloid PET. Brain, 2017, 140, 1486-1498.	3.7	123
47	Trace elementâ€“protein interactions in endolymph from the inner ear of fish: implications for environmental reconstructions using fish otolith chemistry. Metallomics, 2017, 9, 239-249.	1.0	89
48	Subcellular compartmentalisation of copper, iron, manganese, and zinc in the Parkinson's disease brain. Metallomics, 2017, 9, 1447-1455.	1.0	89
49	The influence of the ethane-1,2-diamine ligand on the activity of a monofunctional platinum complex. Journal of Inorganic Biochemistry, 2017, 177, 328-334.	1.5	10
50	Glutathione peroxidase 4: a new player in neurodegeneration?. Molecular Psychiatry, 2017, 22, 328-335.	4.1	196
51	The Neurobiology and Age-Related Prevalence of the Î¼4 Allele of Apolipoprotein E in Alzheimerâ€™s Disease Cohorts. Journal of Molecular Neuroscience, 2016, 60, 316-324.	1.1	82
52	Standards for Quantitative Metalloproteomic Analysis Using Size Exclusion ICP-MS. Journal of Visualized Experiments, 2016, , .	0.2	17
53	Profiling changes to natively-bound metals during Caenorhabditis elegans development. RSC Advances, 2016, 6, 113689-113693.	1.7	8
54	Rubidium and potassium levels are altered in Alzheimerâ€™s disease brain and blood but not in cerebrospinal fluid. Acta Neuropathologica Communications, 2016, 4, 119.	2.4	39

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55	Laser ablation-inductively coupled plasma-mass spectrometry imaging of white and gray matter iron distribution in Alzheimer's disease frontal cortex. NeuroImage, 2016, 137, 124-131.	2.1	57
56	Copper delivery to the CNS by CuATSM effectively treats motor neuron disease in SODG93A mice co-expressing the Copper-Chaperone-for-SOD. Neurobiology of Disease, 2016, 89, 1-9.	2.1	126
57	Accurate biometal quantification per individual Caenorhabditis elegans. Analyst, The, 2016, 141, 1434-1439.	1.7	27
58	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. Metallomics, 2016, 8, 628-632.	1.0	30
59	The Emerging Role of Metalloproteomics in Alzheimerâ€™s Disease Research. Methods in Molecular Biology, 2016, 1303, 379-389.	0.4	12
60	Selenium, selenoproteins and neurodegenerative diseases. Metallomics, 2015, 7, 1213-1228.	1.0	210
61	Direct in vivo imaging of ferrous iron dyshomeostasis in ageing Caenorhabditis elegans. Chemical Science, 2015, 6, 2952-2962.	3.7	86
62	Visualising mouse neuroanatomy and function by metal distribution using laser ablation-inductively coupled plasma-mass spectrometry imaging. Chemical Science, 2015, 6, 5383-5393.	3.7	69
63	Neonatal iron supplementation potentiates oxidative stress, energetic dysfunction and neurodegeneration in the R6/2 mouse model of Huntington's disease. Redox Biology, 2015, 4, 363-374.	3.9	31
64	Decreased Plasma Iron in Alzheimerâ€™s Disease Is Due to Transferrin Desaturation. ACS Chemical Neuroscience, 2015, 6, 398-402.	1.7	75
65	Stabilization of Nontoxic AÂ-Oligomers: Insights into the Mechanism of Action of Hydroxyquinolines in Alzheimer's Disease. Journal of Neuroscience, 2015, 35, 2871-2884.	1.7	67
66	FluphenazineÂ·HCl and Epigallocatechin Gallate Modulate the Rate of Formation and Structural Properties of Apolipoprotein C-II Amyloid Fibrils. Biochemistry, 2015, 54, 3831-3838.	1.2	8
67	The prion protein regulates beta-amyloid-mediated self-renewal of neural stem cells in vitro. Stem Cell Research and Therapy, 2015, 6, 60.	2.4	13
68	Small angle X-ray scattering analysis of Cu2+-induced oligomers of the Alzheimer's amyloid Î² peptide. Metallomics, 2015, 7, 536-543.	1.0	25
69	ZnII(atsm) is protective in amyotrophic lateral sclerosis model mice via a copper delivery mechanism. Neurobiology of Disease, 2015, 81, 20-24.	2.1	28
70	Traumatic brain injury induces elevation of Co in the human brain. Metallomics, 2015, 7, 66-70.	1.0	11
71	Guanidine hydrochloride denaturation of dopamine-induced Î±-synuclein oligomers: A small-angle X-ray scattering study. Proteins: Structure, Function and Bioinformatics, 2014, 82, 10-21.	1.5	9
72	Decreased serum zinc is an effect of ageing and not Alzheimer's disease. Metallomics, 2014, 6, 1216-1219.	1.0	34

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73	An ironâ€“dopamine index predicts risk of parkinsonian neurodegeneration in the substantia nigra pars compacta. Chemical Science, 2014, 5, 2160-2169.	3.7	98
74	Oral Treatment with CuII(atsm) Increases Mutant SOD1 In Vivo but Protects Motor Neurons and Improves the Phenotype of a Transgenic Mouse Model of Amyotrophic Lateral Sclerosis. Journal of Neuroscience, 2014, 34, 8021-8031.	1.7	161
75	Ceruloplasmin and Î²-amyloid precursor protein confer neuroprotection in traumatic brain injury and lower neuronal iron. Free Radical Biology and Medicine, 2014, 69, 331-337.	1.3	49
76	Changes in plasma amyloid beta in a longitudinal study of aging and Alzheimer's disease. Alzheimer's and Dementia, 2014, 10, 53-61.	0.4	114
77	Progress towards a consensus on biomarkers for Alzheimerâ€™s disease: a review of peripheral analytes. Biomarkers in Medicine, 2013, 7, 641-662.	0.6	30
78	Synthetic dityrosine-linked Î²-amyloid dimers form stable, soluble, neurotoxic oligomers. Chemical Science, 2013, 4, 4449.	3.7	44
79	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. Metallomics, 2013, 5, 1656.	1.0	39
80	Longitudinal Analysis of Serum Copper and Ceruloplasmin in Alzheimer's Disease. Journal of Alzheimer's Disease, 2013, 34, 171-182.	1.2	46
81	Metalloproteomics: principles, challenges and applications to neurodegeneration. Frontiers in Aging Neuroscience, 2013, 5, 35.	1.7	56
82	Decreased Copper in Alzheimerâ€™s Disease Brain Is Predominantly in the Soluble Extractable Fraction. International Journal of Alzheimer's Disease, 2013, 2013, 1-7.	1.1	36
83	Ammonium hydroxide treatment of AÎ² produces an aggregate free solution suitable for biophysical and cell culture characterization. PeerJ, 2013, 1, e73.	0.9	93
84	Small Amphipathic Molecules Modulate Secondary Structure and Amyloid Fibril-forming Kinetics of Alzheimer Disease Peptide AÎ²1â€“42. Journal of Biological Chemistry, 2012, 287, 16947-16954.	1.6	41
85	The hypoxia imaging agent CuII(atsm) is neuroprotective and improves motor and cognitive functions in multiple animal models of Parkinsonâ€™s disease. Journal of Experimental Medicine, 2012, 209, 837-854.	4.2	151
86	Tau deficiency induces parkinsonism with dementia by impairing APP-mediated iron export. Nature Medicine, 2012, 18, 291-295.	15.2	491
87	Utility of an improved model of amyloid-beta (AÎ²1-42) toxicity in Caenorhabditis elegans for drug screening for Alzheimerâ€™s disease. Molecular Neurodegeneration, 2012, 7, 57.	4.4	188
88	The role of metallobiology and amyloidâ€Î² peptides in Alzheimerâ€™s disease. Journal of Neurochemistry, 2012, 120, 149-166.	2.1	233
89	Rapid Generation of Dityrosine Cross-linked AÎ² Oligomers via Cu-Redox Cycling. Methods in Molecular Biology, 2012, 849, 3-10.	0.4	6
90	Copper Promotes the Trafficking of the Amyloid Precursor Protein. Journal of Biological Chemistry, 2011, 286, 8252-8262.	1.6	90

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91	Cu,Zn-Superoxide Dismutase Increases Toxicity of Mutant and Zinc-deficient Superoxide Dismutase by Enhancing Protein Stability*. Journal of Biological Chemistry, 2010, 285, 33885-33897.	1.6	37
92	Near-Infrared Fluorescence Imaging of Apoptotic Neuronal Cell Death in a Live Animal Model of Prion Disease. ACS Chemical Neuroscience, 2010, 1, 720-727.	1.7	25
93	The Caenorhabditis elegans AÎ²1â€“42 Model of Alzheimer Disease Predominantly Expresses AÎ²3â€“42. Journal of Biological Chemistry, 2009, 284, 22697-22702.	1.6	108
94	Structural Characterization of Zinc-deficient Human Superoxide Dismutase and Implications for ALS. Journal of Molecular Biology, 2007, 373, 877-890.	2.0	122
95	Oxidized and synchrotron cleaved structures of the disulfide redox center in the N-terminal domain ofSalmonella typhimuriumAhpF. Protein Science, 2005, 14, 2414-2420.	3.1	39