Willard M Freeman

List of Publications by Year
in descending order

131 papers	7,758 citations	71102 41 h-index	60623 81 g-index
143 all docs	143 docs citations	143 times ranked	10528 citing authors

#	Article	IF	Citations
1	Repeated cocaine or methamphetamine treatment alters astrocytic CRF2 and GLAST expression in the ventral midbrain. Addiction Biology, 2022, 27, e13120.	2.6	5
2	Minimizing the Ex Vivo Confounds of Cell-Isolation Techniques on Transcriptomic and Translatomic Profiles of Purified Microglia. ENeuro, 2022, 9, ENEURO.0348-21.2022.	1.9	27
3	Scavenging mitochondrial hydrogen peroxide by peroxiredoxin 3 overexpression attenuates contractile dysfunction and muscle atrophy in a murine model of accelerated sarcopenia. Aging Cell, 2022, 21, e13569.	6.7	22
4	Differential Regulation of Mouse Hippocampal Gene Expression Sex Differences by Chromosomal Content and Gonadal Sex. Molecular Neurobiology, 2022, 59, 4669-4702.	4.0	11
5	Heart and neural crest derivative 2â€induced preservation of sympathetic neurons attenuates sarcopenia with aging. Journal of Cachexia, Sarcopenia and Muscle, 2021, 12, 91-108.	7.3	12
6	Cellular hallmarks of aging emerge in the ovary prior to primordial follicle depletion. Mechanisms of Ageing and Development, 2021, 194, 111425.	4.6	30
7	Cigarette Smoke Activates NOTCH3 to Promote Goblet Cell Differentiation in Human Airway Epithelial Cells. American Journal of Respiratory Cell and Molecular Biology, 2021, 64, 426-440.	2.9	31
8	Heterochronic Plasma Transfer Alters Proteostatic Maintenance in Skeletal Muscle. FASEB Journal, 2021, 35, .	0.5	0
9	Litter expansion alters metabolic homeostasis in a sex specific manner. PLoS ONE, 2021, 16, e0237199.	2.5	6
10	Longâ€term, induced expression of Hand2 in peripheral sympathetic neurons ameliorates sarcopenia in geriatric mice. Journal of Cachexia, Sarcopenia and Muscle, 2021, 12, 1908-1924.	7.3	11
11	Oklahoma Nathan Shock Aging Center â€" assessing the basic biology of aging from genetics to protein and function. GeroScience, 2021, 43, 2183-2203.	4.6	2
12	Many chronological aging clocks can be found throughout the epigenome: Implications for quantifying biological aging. Aging Cell, 2021, 20, e13492.	6.7	35
13	Short-term Calorie Restriction and 17Î±-Estradiol Administration Elicit Divergent Effects on Proteostatic Processes and Protein Content in Metabolically Active Tissues. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2020, 75, 849-857.	3.6	28
14	Inducible cell-specific mouse models for paired epigenetic and transcriptomic studies of microglia and astroglia. Communications Biology, 2020, 3, 693.	4.4	27
15	Female mice are resilient to age-related decline of substantia nigra dopamine neuron firing parameters. Neurobiology of Aging, 2020, 95, 195-204.	3.1	15
16	Targeting cPLA2 derived lipid hydroperoxides as a potential intervention for sarcopenia. Scientific Reports, 2020, 10, 13968.	3.3	24
17	Molecular changes in transcription and metabolic pathways underlying muscle atrophy in the CuZnSOD null mouse model of sarcopenia. GeroScience, 2020, 42, 1101-1118.	4.6	22
18	Exercising your mind. Science, 2020, 369, 144-145.	12.6	3

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19	Health benefits attributed to 17Î±-estradiol, a lifespan-extending compound, are mediated through estrogen receptorÂÎ±. ELife, 2020, 9, .	6.0	30
20	Obesity in Aging Exacerbates Neuroinflammation, Dysregulating Synaptic Function-Related Genes and Altering Eicosanoid Synthesis in the Mouse Hippocampus: Potential Role in Impaired Synaptic Plasticity and Cognitive Decline. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2019, 74, 290-298.	3.6	72
21	Early-life DNA methylation profiles are indicative of age-related transcriptome changes. Epigenetics and Chromatin, 2019, 12, 58.	3.9	22
22	Tamoxifen induction of Cre recombinase does not cause long-lasting or sexually divergent responses in the CNS epigenome or transcriptome: implications for the design of aging studies. GeroScience, 2019, 41, 691-708.	4.6	20
23	Mitochondrial oxidative stress impairs contractile function but paradoxically increases muscle mass via fibre branching. Journal of Cachexia, Sarcopenia and Muscle, 2019, 10, 411-428.	7.3	50
24	Canonical Wnt Signaling Promotes Neovascularization Through Determination of Endothelial Progenitor Cell Fate via Metabolic Profile Regulation. Stem Cells, 2019, 37, 1331-1343.	3.2	22
25	Weight Loss Results in Increased Expression of Antiâ€Inflammatory Protein CRISPLD2 in Mouse Adipose Tissue. Obesity, 2019, 27, 2025-2036.	3.0	7
26	The role of DNA methylation in epigenetics of aging. , 2019, 195, 172-185.		216
27	Caloric restriction mitigates age-associated hippocampal differential CG and non-CG methylation. Neurobiology of Aging, 2018, 67, 53-66.	3.1	45
28	Insulin-like growth factor receptor signaling regulates working memory, mitochondrial metabolism, and amyloid-Î² uptake in astrocytes. Molecular Metabolism, 2018, 9, 141-155.	6.5	119
29	Expression of the purine biosynthetic enzyme phosphoribosyl formylglycinamidine synthase in neurons. Journal of Neurochemistry, 2018, 144, 723-735.	3.9	9
30	Revisiting the genomic hypomethylation hypothesis of aging. Annals of the New York Academy of Sciences, 2018, 1418, 69-79.	3.8	72
31	Analysis of DNA modifications in aging research. GeroScience, 2018, 40, 11-29.	4.6	39
32	17Î±â€estradiol acts through hypothalamic proâ€opiomelanocortin expressing neurons to reduce feeding behavior. Aging Cell, 2018, 17, e12703.	6.7	33
33	A potential common role of the Jumonji C domainâ€‘containing 1A histone demethylase and chromatin remodeler ATRX in promoting colon cancer. Oncology Letters, 2018, 16, 6652-6662.	1.8	16
34	Exposure to environmental enrichment attenuates addiction-like behavior and alters molecular effects of heroin self-administration in rats. Neuropharmacology, 2018, 139, 26-40.	4.1	34
35	Age-related focal loss of contractile vascular smooth muscle cells in retinal arterioles is accelerated by caveolin-1 deficiency. Neurobiology of Aging, 2018, 71, 1-12.	3.1	16
36	CNS-wide Sexually Dimorphic Induction of the Major Histocompatibility Complex 1 Pathway With Aging. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2017, 72, 16-29.	3.6	52

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37	Role of DNA methylation in the dietary restriction mediated cellular memory. GeroScience, 2017, 39, 331-345.	4.6	23
38	Sexually divergent <scp>DNA</scp> methylation patterns with hippocampal aging. Aging Cell, 2017, 16, 1342-1352.	6.7	67
39	Functional changes in the neural retina occur in the absence of mitochondrial dysfunction in a rodent model of diabetic retinopathy. Journal of Neurochemistry, 2017, 143, 595-608.	3.9	24
40	Isolation of Neuronal Synaptic Membranes by Sucrose Gradient Centrifugation. Methods in Molecular Biology, 2017, 1609, 33-41.	0.9	4
41	Sexually divergent induction of microglial-associated neuroinflammation with hippocampal aging. Journal of Neuroinflammation, 2017, 14, 141.	7.2	142
42	Retinal gene expression responses to aging are sexually divergent. Molecular Vision, 2017, 23, 707-717.	1.1	22
43	Bisulfite oligonucleotide-capture sequencing for targeted base- and strand-specific absolute 5-methylcytosine quantitation. Age, 2016, 38, 49.	3.0	14
44	Loss of the antioxidant enzyme CuZnSOD (Sod1) mimics an age-related increase in absolute mitochondrial DNA copy number in the skeletal muscle. Age, 2016, 38, 323-333.	3.0	24
45	Absence of genomic hypomethylation or regulation of cytosine-modifying enzymes with aging in male and female mice. Epigenetics and Chromatin, 2016, 9, 30.	3.9	45
46	Assessment of individual differences in the rat nucleus accumbens transcriptome following taste-heroin extended access. Brain Research Bulletin, 2016, 123, 71-80.	3.0	30
47	Reward devaluation and heroin escalation is associated with differential expression of CRF signaling genes. Brain Research Bulletin, 2016, 123, 81-93.	3.0	15
48	Recent Developments in Understanding Brain Aging: Implications for Alzheimerâ€™s Disease and Vascular Cognitive Impairment. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2016, 71, 13-20.	3.6	42
49	Detrimental effects of duplicate reads and low complexity regions on RNA- and ChIP-seq data. BMC Bioinformatics, 2015, 16, S10.	2.6	19
50	Targeted DNA Methylation Analysis by Next-generation Sequencing. Journal of Visualized Experiments, 2015, , .	0.3	72
51	Insulin treatment normalizes retinal neuroinflammation but not markers of synapse loss in diabetic rats. Experimental Eye Research, 2014, 125, 95-106.	2.6	14
52	Hippocampal Subregions Exhibit Both Distinct and Shared Transcriptomic Responses to Aging and Nonneurodegenerative Cognitive Decline. Journals of Gerontology - Series A Biological Sciences and Medical Sciences, 2014, 69, 1311-1324.	3.6	43
53	Effect of cold perfusion and perfluorocarbons on liver graft ischemia in a donation after cardiac death model. Journal of Surgical Research, 2014, 188, 517-526.	1.6	10
54	Integrative transcriptomic and proteomic analysis of osteocytic cells exposed to fluid flow reveals novel mechano-sensitive signaling pathways. Journal of Biomechanics, 2014, 47, 1838-1845.	2.1	29

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55	Nanoliposomal minocycline for ocular drug delivery. Nanomedicine: Nanotechnology, Biology, and Medicine, 2013, 9, 130-140.	3.3	49
56	Expression of NgR1-Antagonizing Proteins Decreases with Aging and Cognitive Decline in Rat Hippocampus. Cellular and Molecular Neurobiology, 2013, 33, 483-488.	3.3	18
57	Increased hippocampal NgR1 signaling machinery in aged rats with deficits of spatial cognition. European Journal of Neuroscience, 2013, 37, 1643-1658.	2.6	23
58	Focused, high accuracy 5-methylcytosine quantitation with base resolution by benchtop next-generation sequencing. Epigenetics and Chromatin, 2013, 6, 33.	3.9	127
59	Insulin-like growth factor-1 in CNS and cerebrovascular aging. Frontiers in Aging Neuroscience, 2013, 5, 27.	3.4	98
60	Protein biomarkers of alcohol abuse. Expert Review of Proteomics, 2012, 9, 425-436.	3.0	30
61	Quantification of Hepatic UDP Glucuronosyltransferase 1A Splice Variant Expression and Correlation of UDP Glucuronosyltransferase 1A1 Variant Expression with Glucuronidation Activity. Journal of Pharmacology and Experimental Therapeutics, 2012, 342, 720-729.	2.5	22
62	Neuroglial Expression of the MHCI Pathway and PirB Receptor Is Upregulated in the Hippocampus with Advanced Aging. Journal of Molecular Neuroscience, 2012, 48, 111-126.	2.3	53
63	Differential Gene Expression in Tamoxifen-Resistant Breast Cancer Cells Revealed by a New Analytical Model of RNA-Seq Data. PLoS ONE, 2012, 7, e41333.	2.5	53
64	Hippocampal expression of myelinâ€associated inhibitors is induced with ageâ€related cognitive decline and correlates with deficits of spatial learning and memory. Journal of Neurochemistry, 2012, 121, 77-98.	3.9	45
65	The Kinetics of Cardiopulmonary Bypass: A Dualâ€Platform Proteomics Study of Plasma Biomarkers in Pediatric Patients Undergoing Cardiopulmonary Bypass. Artificial Organs, 2012, 36, E1-20.	1.9	14
66	A Longitudinal Analysis of Circulating Stressâ€Related Proteins and Chronic Ethanol Selfâ€Administration in Cynomolgus Macaques. Alcoholism: Clinical and Experimental Research, 2012, 36, 995-1003.	2.4	29
67	Multi-Modal Proteomic Analysis of Retinal Protein Expression Alterations in a Rat Model of Diabetic Retinopathy. PLoS ONE, 2011, 6, e16271.	2.5	44
68	TPH2 in the ventral tegmental area of the male rat brain. Brain Research Bulletin, 2011, 84, 376-380.	3.0	32
69	The Hippocampal Neuroproteome with Aging and Cognitive Decline: Past Progress and Future Directions. Frontiers in Aging Neuroscience, 2011, 3, 8.	3.4	57
70	Plasma proteomic alterations in non-human primates and humans after chronic alcohol self-administration. International Journal of Neuropsychopharmacology, 2011, 14, 899-911.	2.1	14
71	Individual Differences in Hyperlipidemia and Vitamin E Status in Response to Chronic Alcohol Self-Administration in Cynomolgus Monkeys. Alcoholism: Clinical and Experimental Research, 2011, 35, 474-483.	2.4	12
72	Concurrent hippocampal induction of MHC II pathway components and glial activation with advanced aging is not correlated with cognitive impairment. Journal of Neuroinflammation, 2011, 8, 138.	7.2	111

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73	Chronic insulin treatment of diabetes does not fully normalize alterations in the retinal transcriptome. BMC Medical Genomics, 2011, 4, 40.	1.5	23
74	Hippocampal dysregulation of synaptic plasticity-associated proteins with age-related cognitive decline. Neurobiology of Disease, 2011, 43, 201-212.	4.4	120
75	Circulating IGF1 regulates hippocampal IGF1 levels and brain gene expression during adolescence. Journal of Endocrinology, 2011, 211, 27-37.	2.6	55
76	Proteomic Analysis of Changes Mediating Tolerance to Dopamine D1 Agonists: Implications for Parkinson's Disease (PD). FASEB Journal, 2011, 25, 1005.1.	0.5	0
77	Age-related alterations in retinal neurovascular and inflammatory transcripts. Molecular Vision, 2011, 17, 1261-74.	1.1	28
78	Circulating Cytokines as Biomarkers of Alcohol Abuse and Alcoholism. Journal of NeuroImmune Pharmacology, 2010, 5, 83-91.	4.1	161
79	Gene expression changes in the medial prefrontal cortex and nucleus accumbens following abstinence from cocaine self-administration. BMC Neuroscience, 2010, 11, 29.	1.9	52
80	Differences in the BAL proteome after Klebsiella pneumoniae infection in wild type and SP-A-/- mice. Proteome Science, 2010, 8, 34.	1.7	25
81	Future Prospects for Biomarkers of Alcohol Consumption and Alcoholâ€Induced Disorders. Alcoholism: Clinical and Experimental Research, 2010, 34, 946-954.	2.4	31
82	Aging alters the expression of neurotransmissionâ€regulating proteins in the hippocampal synaptoproteome. Journal of Neurochemistry, 2010, 113, 1577-1588.	3.9	109
83	Effects of Ischemic Preconditioning and Bevacizumab on Apoptosis and Vascular Permeability Following Retinal Ischemiaâ€“Reperfusion Injury. , 2010, 51, 5920.		70
84	Dual-Platform Proteomics Study of Plasma Biomarkers in Pediatric Patients Undergoing Cardiopulmonary Bypass. Pediatric Research, 2010, 67, 641-649.	2.3	22
85	Classification of Alcohol Abuse by Plasma Protein Biomarkers. Biological Psychiatry, 2010, 68, 219-222.	1.3	22
86	FOXO3a elicits a pro-apoptotic transcription program and cellular response to human lung carcinogen nicotine-derived nitrosaminoketone (NNK). Lung Cancer, 2010, 67, 37-47.	2.0	25
87	Clinical application for the preservation of phospho-proteins through in-situ tissue stabilization. Proteome Science, 2010, 8, 61.	1.7	35
88	The use of neuroproteomics in drug abuse research. Drug and Alcohol Dependence, 2010, 107, 11-22.	3.2	17
89	Human Embryonic and Mesenchymal Stem Cells Express Different Nuclear Proteomes. Stem Cells and Development, 2009, 18, 793-802.	2.1	17
90	The Retinal Proteome in Experimental Diabetic Retinopathy. Molecular and Cellular Proteomics, 2009, 8, 767-779.	3.8	79

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91	Age-related changes in the expression and oxidation of bronchoalveolar lavage proteins in the rat. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2009, 296, L14-L29.	2.9	40
92	Gene expression changes following extinction testing in a heroin behavioral incubation model. BMC Neuroscience, 2009, 10, 95.	1.9	45
93	Gene expression profiles in HPV-immortalized human cervical cells treated with the nicotine-derived carcinogen 4-(methylnitrosamino)-1-(3-pyridyl)-1-butanone. Chemico-Biological Interactions, 2009, 177, 173-180.	4.0	16
94	Transcriptomic comparison of the retina in two mouse models of diabetes. Journal of Ocular Biology, Diseases, and Informatics, 2009, 2, 202-213.	0.2	35
95	Persistent proteomic alterations in the medial prefrontal cortex with abstinence from cocaine selfâ€administration. Proteomics - Clinical Applications, 2009, 3, 462-472.	1.6	21
96	2â€Ð DIGE identification of differentially expressed heterogeneous nuclear ribonucleoproteins and transcription factors during neural differentiation of human embryonic stem cells. Proteomics - Clinical Applications, 2009, 3, 505-514.	1.6	9
97	Penn State Hersheyâ€"Center for Pediatric Cardiovascular Research. Artificial Organs, 2009, 33, 883-887.	1.9	4
98	The impact of surfactant protein-A on ozone-induced changes in the mouse bronchoalveolar lavage proteome. Proteome Science, 2009, 7, 12.	1.7	32
99	Pediatric cardiopulmonary bypass circuits: a review of studies conducted at the Penn State Pediatric Cardiac Research Laboratories. Journal of Extra-Corporeal Technology, 2009, 41, P50-8.	0.4	3
100	Whole genome assessment of the retinal response to diabetes reveals a progressive neurovascular inflammatory response. BMC Medical Genomics, 2008, 1, 26.	1.5	98
101	Correlating Human and Animal Studies of Cocaine Abuse and Gene Expression. Annals of the New York Academy of Sciences, 2008, 1141, 58-75.	3.8	27
102	Diabetes downregulates presynaptic proteins and reduces basal synapsin I phosphorylation in rat retina. European Journal of Neuroscience, 2008, 28, 1-11.	2.6	87
103	Heroin self-administration: II. CNS gene expression following withdrawal and cue-induced drug-seeking behavior. Pharmacology Biochemistry and Behavior, 2008, 90, 349-356.	2.9	48
104	Plasma Biomarkers in Pediatric Patients Undergoing Cardiopulmonary Bypass. Pediatric Research, 2008, 63, 638-644.	2.3	28
105	Persistent Alterations in Mesolimbic Gene Expression with Abstinence from Cocaine Self-Administration. Neuropsychopharmacology, 2008, 33, 1807-1817.	5.4	110
106	CNS Genes Implicated in Relapse. Substance Abuse: Research and Treatment, 2008, 2, SART.S1042.	0.9	1
107	Twenty-five years of quantitative PCR for gene expression analysis. BioTechniques, 2008, 44, 619-626.	1.8	961
108	Quantitative Proteomic Profiles of BALF in Wild Type and SPâ€A KO Mice after Exposure to Ozone. FASEB Journal, 2007, 21, A9.	0.5	1

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109	A Comparative Proteomic Analysis of Bronchoalveolar Lavage Fluid in Rats with Aging using 2â€ÐIGE and MALDIâ€ToF/ToF. FASEB Journal, 2007, 21, A1401.	0.5	2
110	Depletion of abundant proteins from non-human primate serum for biomarker studies. Proteomics, 2006, 6, 3109-3113.	2.2	19
111	APO-AII IS AN ELEVATED BIOMARKER OF CHRONIC NON-HUMAN PRIMATE ETHANOL SELF-ADMINISTRATION. Alcohol and Alcoholism, 2006, 41, 300-305.	1.6	17
112	Diabetic Retinopathy. Diabetes, 2006, 55, 2401-2411.	0.6	673
113	Plasma proteomics: a noninvasive window on pathology and pediatric cardiac surgery. ASAIO Journal, 2006, 52, 562-6.	1.6	15
114	Transcriptome analysis of frontal cortex in alcohol-preferring and nonpreferring rats. Journal of Neuroscience Research, 2005, 80, 529-538.	2.9	46
115	Functional Genomic Analysis in Pain Research Using Hybridization Arrays. , 2004, 99, 239-253.		3
116	Alterations in ionotropic glutamate receptor subunits during binge cocaine self-administration and withdrawal in rats. Journal of Neurochemistry, 2004, 89, 1021-1033.	3.9	77
117	Proteomics for Protein Expression Profiling in Neuroscience. Neurochemical Research, 2004, 29, 1065-1081.	3.3	103
118	Manganese-Induced Cytotoxicity in Dopamine-Producing Cells. NeuroToxicology, 2004, 25, 543-553.	3.0	83
119	Systematic Screening of Gene Expression Using a cDNA Macroarray. , 2003, 79, 243-260.		0
120	Use of Microarray Technologies in Toxicology Research. NeuroToxicology, 2003, 24, 321-332.	3.0	47
121	Changes in rat frontal cortex gene expression following chronic cocaine. Molecular Brain Research, 2002, 104, 11-20.	2.3	52
122	Induction of GADD45 and GADD153 in Neuroblastoma Cells by Dopamine-Induced Toxicity. NeuroToxicology, 2002, 23, 675-684.	3.0	43
123	An Interactive Database of Cocaine-Responsive Gene Expression. Scientific World Journal, The, 2002, 2, 701-706.	2.1	9
124	Repeated cocaine self-administration causes multiple changes in rat frontal cortex gene expression. Neurochemical Research, 2002, 27, 1181-1192.	3.3	32
125	Chronic cocaine-mediated changes in non-human primate nucleus accumbens gene expression. Journal of Neurochemistry, 2001, 77, 542-549.	3.9	115
126	Chronic cocaine-mediated changes in non-human primate nucleus accumbens gene expression. Journal of Neurochemistry, 2001, 77, 1423-1423.	3.9	2

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127	Fundamentals of DNA Hybridization Arrays for Gene Expression Analysis. BioTechniques, 2000, 29, 1042-1055.	1.8	161
128	A cocaine analog, 2Î²-propanoyl-3Î²-(4-tolyl)-tropane (PTT), reduces tyrosine hydroxylase in the mesolimbic dopamine pathway. Drug and Alcohol Dependence, 2000, 61, 15-21.	3.2	3
129	Quantitative RT-PCR: Pitfalls and Potential. BioTechniques, 1999, 26, 112-125.	1.8	924
130	PCR-based apolipoprotein E genotype analysis from archival fixed brain. Journal of Neuroscience Methods, 1998, 80, 209-214.	2.5	13
131	Tyrosine mRNA is expressed in human substantia nigra. Molecular Brain Research, 1997, 45, 159-162.	2.3	194