Joseph P Walton

List of Publications by Year
in descending order

69 papers	2,514 citations	147801 31 h-index	206112 48 g-index
72 all docs	72 docs citations	72 times ranked	1666 citing authors

#	Article	IF	Citations
1	Age-Related Alteration in Processing of Temporal Sound Features in the Auditory Midbrain of the CBA Mouse. Journal of Neuroscience, 1998, 18, 2764-2776.	3.6	229
2	Age-Related Alterations in the Neural Coding of Envelope Periodicities. Journal of Neurophysiology, 2002, 88, 565-578.	1.8	136
3	Timing is everything: Temporal processing deficits in the aged auditory brainstem. Hearing Research, 2010, 264, 63-69.	2.0	126
4	Neural correlates of behavioral gap detection in the inferior colliculus of the young CBA mouse. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1997, 181, 161-176.	1.6	121
5	Age-related structural and functional changes in the cochlear nucleus. Hearing Research, 2006, 216-217, 216-223.	2.0	97
6	Behavioral and neural measures of auditory temporal acuity in aging humans and mice. Neurobiology of Aging, 2002, 23, 565-578.	3.1	85
7	Hearing Loss in Infants With Persistent Fetal Circulation. Pediatrics, 1988, 81, 650-656.	2.1	85
8	Neural processing of musical timbre by musicians, nonmusicians, and musicians possessing absolute pitch. Journal of the Acoustical Society of America, 1994, 95, 2720-2727.	1.1	77
9	Age-related hearing loss: prevention of threshold declines, cell loss and apoptosis in spiral ganglion neurons. Aging, 2016, 8, 2081-2099.	3.1	75
10	Effects of musical training and absolute pitch ability on eventâ€related activity in response to sine tones. Journal of the Acoustical Society of America, 1992, 91, 3527-3531.	1.1	66
11	Lead exposure during development results in increased neurofilament phosphorylation, neuritic beading, and temporal processing deficits within the murine auditory brainstem. Journal of Comparative Neurology, 2008, 506, 1003-1017.	1.6	61
12	Synaptic loss in the central nucleus of the inferior colliculus correlates with sensorineural hearing loss in the C57BL/6 mouse model of presbycusis. Hearing Research, 1995, 89, 109-120.	2.0	56
13	Effects of Musical Training and Absolute Pitch on the Neural Processing of Melodic Intervals: A P3 Event-Related Potential Study. Music Perception, 1992, 10, 25-42.	1.1	51
14	Auditory brainstem response forward-masking recovery functions in older humans with normal hearing. Hearing Research, 1999, 127, 86-94.	2.0	51
15	Sensorineural hearing loss alters recovery from short-term adaptation in the C57BL/6 mouse. Hearing Research, 1995, 88, 19-26.	2.0	48
16	Age-related hearing loss: GABA, nicotinic acetylcholine and NMDA receptor expression changes in spiral ganglion neurons of the mouse. Neuroscience, 2014, 259, 184-193.	2.3	47
17	Interactions of hearing loss and diabetes mellitus in the middle age CBA/CaJ mouse model of presbycusis. Hearing Research, 2009, 249, 44-53.	2.0	46
18	Preservation of amplitude modulation coding in the presence of background noise by chinchilla auditoryâ€nerve fibers. Journal of the Acoustical Society of America, 1996, 99, 475-490.	1.1	45

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19	Differential calbindin-like immunoreactivity in the brain stem auditory system of the chinchilla. Journal of Comparative Neurology, 1992, 320, 196-212.	1.6	44
20	Inputs to a physiologically characterized region of the inferior colliculus of the young adult CBA mouse. Hearing Research, 1998, 115, 61-81.	2.0	44
21	Sensorineural Hearing Loss and Neural Correlates of Temporal Acuity in the Inferior Colliculus of the C57bl/6 Mouse. JARO - Journal of the Association for Research in Otolaryngology, 2008, 9, 90-101.	1.8	43
22	AMTAS^{Â®}: Automated method for testing auditory sensitivity: II. Air conduction audiograms in children and adults. International Journal of Audiology, 2011, 50, 434-439.	1.7	43
23	Dorsal cochlear nucleus single neurons can enhance temporal processing capabilities in background noise. Experimental Brain Research, 1994, 102, 160-4.	1.5	41
24	Iron Deficiency Disrupts Axon Maturation of the Developing Auditory Nerve. Journal of Neuroscience, 2012, 32, 5010-5015.	3.6	41
25	Does the Melody Linger on? Music Cognition in Alzheimer's Disease. Seminars in Neurology, 1989, 9, 152-158.	1.4	40
26	Age reduces response latency of mouse inferior colliculus neurons to AM sounds. Journal of the Acoustical Society of America, 2004, 116, 469-477.	1.1	39
27	Alterations in Peripheral and Central Components of the Auditory Brainstem Response: A Neural Assay of Tinnitus. PLoS ONE, 2015, 10, e0117228.	2.5	37
28	Direct control of Na⁺-K⁺-2Cl^{âˆ’}-cotransport protein (NKCC1) expression with aldosterone. American Journal of Physiology - Cell Physiology, 2014, 306, C66-C75.	4.6	36
29	A nanoliter resolution implantable micropump for murine inner ear drug delivery. Journal of Controlled Release, 2019, 298, 27-37.	9.9	35
30	Long-term treatment with aldosterone slows the progression of age-related hearing loss. Hearing Research, 2016, 336, 63-71.	2.0	34
31	Gap encoding by inferior collicular neurons is altered by minimal changes in signal envelope. Hearing Research, 1998, 115, 13-26.	2.0	32
32	Impaired gap encoding in aged mouse inferior colliculus at moderate but not high stimulus levels. Hearing Research, 2003, 186, 17-29.	2.0	32
33	Auditory Temporal Processing during Aging. , 2001, , 565-579.		30
34	The relative detectability for mice of gaps having different ramp durations at their onset and offset boundaries. Journal of the Acoustical Society of America, 2002, 112, 740-747.	1.1	30
35	Age-related changes in Na, K-ATPase expression, subunit isoform selection and assembly in the stria vascularis lateral wall of mouse cochlea. Hearing Research, 2018, 367, 59-73.	2.0	30
36	Distribution of calbindin D-28k immunoreactivity in the cochlear nucleus of the young adult chinchilla. Hearing Research, 1995, 85, 53-68.	2.0	29

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37	Efferent projections of a physiologically characterized region of the inferior colliculus of the young adult CBA mouse. Journal of the Acoustical Society of America, 1997, 101, 2741-2753.	1.1	26
38	Nanoparticle-based Plasmonic Transduction for Modulation of Electrically Excitable Cells. Scientific Reports, 2017, 7, 7803.	3.3	25
39	Auditory brainstem gap responses start to decline in mice in middle age: a novel physiological biomarker for age-related hearing loss. Cell and Tissue Research, 2015, 361, 359-369.	2.9	21
40	Neural basis for music cognition: Initial experimental findings.. Psychomusicology: Music, Mind and Brain, 1988, 7, 117-126.	0.3	20
41	Neural basis for music cognition: Future directions and biomedical implications.. Psychomusicology: Music, Mind and Brain, 1988, 7, 127-138.	0.3	19
42	Neural basis for music cognition: Neurophysiological foundations.. Psychomusicology: Music, Mind and Brain, 1988, 7, 99-107.	0.3	18
43	Neural correlates of age-related declines in frequency selectivity in the auditory midbrain. Neurobiology of Aging, 2011, 32, 168-178.	3.1	18
44	Aging of the Mouse Central Auditory System. , 2001, , 339-379.		18
45	P3 event-related potentials and performance of healthy older and Alzheimer's dementia subjects for music perception tasks.. Psychomusicology: Music, Mind and Brain, 1992, 11, 96-118.	0.3	17
46	Kv1.1 channel subunits are not necessary for high temporal acuity in behavioral and electrophysiological gap detection. Hearing Research, 2008, 246, 52-58.	2.0	17
47	Cell Biology and Physiology of the Aging Central Auditory Pathway. Springer Handbook of Auditory Research, 2010, , 39-74.	0.7	14
48	A 3D-Printed Modular Microreservoir for Drug Delivery. Micromachines, 2020, 11, 648.	2.9	13
49	Nimodipine at a dose that slows ABR latencies does not protect the ear against noise. Hearing Research, 1997, 106, 179-183.	2.0	12
50	Aldosterone up-regulates voltage-gated potassium currents and NKCC1 protein membrane fractions. Scientific Reports, 2020, 10, 15604.	3.3	12
51	Background Noise Improves Gap Detection in Tonically Inhibited Inferior Colliculus Neurons. Journal of Neurophysiology, 2002, 87, 240-249.	1.8	11
52	Auditory deficits of Kcna1 deletion are similar to those of a monaural hearing impairment. Hearing Research, 2015, 321, 45-51.	2.0	10
53	P3 Event-Related Potentials and Performance of Young and Old Subjects for Music Perception Tasks. International Journal of Neuroscience, 1994, 78, 223-239.	1.6	8
54	Ablation of mixed lineage kinase 3 (Mlk3) does not inhibit ototoxicity induced by acoustic trauma or aminoglycoside exposure. Hearing Research, 2010, 270, 21-27.	2.0	8

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55	Cochlear pharmacokinetics - Micro-computed tomography and learning-prediction modeling for transport parameter determination. Hearing Research, 2019, 380, 46-59.	2.0	8
56	Increasing GABA reverses age-related alterations in excitatory receptive fields and intensity coding of auditory midbrain neuronsÂinÂaged mice. Neurobiology of Aging, 2017, 56, 87-99.	3.1	7
57	Noise-Induced Hearing Loss in Mice: Effects of High and Low Levels of Noise Trauma in CBA Mice. , 2018, 2018, 1210-1213.		7
58	A Wirelessly Controlled Scalable 3D-Printed Microsystem for Drug Delivery. Pharmaceuticals, 2021, 14, 538.	3.8	7
59	Neuroanatomy of the Central Auditory System. , 2001, , 243-275.		6
60	Machine learning, waveform preprocessing and feature extraction methods for classification of acoustic startle waveforms. MethodsX, 2021, 8, 101166.	1.6	5
61	Loss of the Cochlear Amplifier Prestin Reduces Temporal Processing Efficacy in the Central Auditory System. Frontiers in Cellular Neuroscience, 2018, 12, 291.	3.7	4
62	Automated classification of acoustic startle reflex waveforms in young CBA/CaJ mice using machine learning. Journal of Neuroscience Methods, 2020, 344, 108853.	2.5	4
63	Neurophysiological Manifestations of Aging in the Peripheral and Central Auditory Nervous System. , 2001, , 581-595.		4
64	Binaural Acoustic Reflex Activity following Monaural Noise Exposure in Decerebrate Chinchillas¹: ActivitÃ© du rÃ©flexe acoustique binaural chez des chinchillas dÃ©cÃ©rebrÃ©s aprÃ¨s exposition Ã un bruit monaural. International Journal of Audiology, 1986, 25, 309-320.	1.7	3
65	Background noise differentially effects temporal coding by tonic units in the mouse inferior colliculus. Hearing Research, 2000, 150, 149-160.	2.0	3
66	Rescuing Auditory Temporal Processing with a Novel Augmented Acoustic Environment in an Animal Model of Congenital Hearing Loss. ENeuro, 2021, 8, ENEURO.0231-21.2021.	1.9	1
67	Sodium salicylate alters temporal integration measured through increasing stimulus presentation rates. International Journal of Audiology, 2019, 58, 141-150.	1.7	0
68	Hair Cell Loss and Synaptic Loss in Inferior Colliculus of C57BL/6 MICE. , 1997, , 535-542.		0
69	A BK channel-targeted peptide induces age-dependent improvement in behavioral and neural sound representation. Neurobiology of Aging, 2021, 110, 61-72.	3.1	0