

James B Fallon

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

99
papers

2,297
citations

25
h-index

44
g-index

105
ext. papers

2,718
ext. citations

4.1
avg, IF

5
L-index

#	Paper	IF	Citations
99	Polypyrrole-coated electrodes for the delivery of charge and neurotrophins to cochlear neurons. <i>Biomaterials</i> , 2009 , 30, 2614-24	15.6	238
98	Vibration sensitivity of human muscle spindles and Golgi tendon organs. <i>Muscle and Nerve</i> , 2007 , 36, 21-9	3.4	145
97	Cochlear implants and brain plasticity. <i>Hearing Research</i> , 2008 , 238, 110-7	3.9	109
96	Cochlear implant use following neonatal deafness influences the cochleotopic organization of the primary auditory cortex in cats. <i>Journal of Comparative Neurology</i> , 2009 , 512, 101-14	3.4	105
95	Does cochlear implantation and electrical stimulation affect residual hair cells and spiral ganglion neurons?. <i>Hearing Research</i> , 2007 , 225, 60-70	3.9	101
94	Evidence for strong synaptic coupling between single tactile afferents from the sole of the foot and motoneurons supplying leg muscles. <i>Journal of Neurophysiology</i> , 2005 , 94, 3795-804	3.2	91
93	A novel stimulus artifact removal technique for high-rate electrical stimulation. <i>Journal of Neuroscience Methods</i> , 2008 , 170, 277-84	3	85
92	Evaluation of stimulus parameters and electrode geometry for an effective suprachoroidal retinal prosthesis. <i>Journal of Neural Engineering</i> , 2010 , 7, 036008	5	65
91	Combining cell-based therapies and neural prostheses to promote neural survival. <i>Neurotherapeutics</i> , 2011 , 8, 774-87	6.4	64
90	Auditory hair cell explant co-cultures promote the differentiation of stem cells into bipolar neurons. <i>Experimental Cell Research</i> , 2007 , 313, 232-43	4.2	59
89	Visual cortex responses to single- and simultaneous multiple-electrode stimulation of the retina: implications for retinal prostheses 2012 , 53, 6291-300		58
88	Spiral ganglion neuron survival and function in the deafened cochlea following chronic neurotrophic treatment. <i>Hearing Research</i> , 2011 , 282, 303-13	3.9	57
87	Visual cortex responses to suprachoroidal electrical stimulation of the retina: effects of electrode return configuration. <i>Journal of Neural Engineering</i> , 2012 , 9, 036009	5	55
86	Infrared neural stimulation fails to evoke neural activity in the deaf guinea pig cochlea. <i>Hearing Research</i> , 2015 , 324, 46-53	3.9	46
85	Effects of heating and cooling on nerve terminal impulses recorded from cold-sensitive receptors in the guinea-pig cornea. <i>Journal of General Physiology</i> , 2003 , 121, 427-39	3.4	44
84	Stochastic resonance in muscle receptors. <i>Journal of Neurophysiology</i> , 2004 , 91, 2429-36	3.2	43
83	Chronic neurotrophin delivery promotes ectopic neurite growth from the spiral ganglion of deafened cochleae without compromising the spatial selectivity of cochlear implants. <i>Journal of Comparative Neurology</i> , 2013 , 521, 2818-32	3.4	41

82	Virtual electrodes by current steering in retinal prostheses. <i>Investigative Ophthalmology and Visual Science</i> , 2014 , 55, 8077-85		37
81	An improved cochlear implant electrode array for use in experimental studies. <i>Hearing Research</i> , 2011 , 277, 20-7	3.9	35
80	Subthalamic nucleus deep brain stimulation evokes resonant neural activity. <i>Annals of Neurology</i> , 2018 , 83, 1027-1031	9.4	34
79	Synaptic plasticity after chemical deafening and electrical stimulation of the auditory nerve in cats. <i>Journal of Comparative Neurology</i> , 2010 , 518, 1046-63	3.4	34
78	Chronic electrical stimulation with a suprachoroidal retinal prosthesis: a preclinical safety and efficacy study. <i>PLoS ONE</i> , 2014 , 9, e97182	3.7	34
77	Neural prostheses and brain plasticity. <i>Journal of Neural Engineering</i> , 2009 , 6, 065008	5	32
76	Examining the auditory nerve fiber response to high rate cochlear implant stimulation: chronic sensorineural hearing loss and facilitation. <i>Journal of Neurophysiology</i> , 2010 , 104, 3124-35	3.2	30
75	Anti-inflammatory Effects of Abdominal Vagus Nerve Stimulation on Experimental Intestinal Inflammation. <i>Frontiers in Neuroscience</i> , 2019 , 13, 418	5.1	28
74	Evaluation of focused multipolar stimulation for cochlear implants in acutely deafened cats. <i>Journal of Neural Engineering</i> , 2014 , 11, 065003	5	24
73	Identification of Characters and Localization of Images Using Direct Multiple-Electrode Stimulation With a Suprachoroidal Retinal Prosthesis 2017 , 58, 3962-3974		22
72	Deep brain stimulation for Parkinson's disease modulates high-frequency evoked and spontaneous neural activity. <i>Neurobiology of Disease</i> , 2019 , 130, 104522	7.5	21
71	Spatial Restriction of Neural Activation Using Focused Multipolar Stimulation With a Retinal Prosthesis 2016 , 57, 3181-91		21
70	Electrochemical and biological performance of chronically stimulated conductive hydrogel electrodes. <i>Journal of Neural Engineering</i> , 2020 , 17, 026018	5	20
69	Cochlear implantation for chronic electrical stimulation in the mouse. <i>Hearing Research</i> , 2013 , 306, 37-45,9		18
68	Structural and Ultrastructural Changes to Type I Spiral Ganglion Neurons and Schwann Cells in the Deafened Guinea Pig Cochlea. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2017 , 18, 751-769	3.3	18
67	Effects of chronic cochlear electrical stimulation after an extended period of profound deafness on primary auditory cortex organization in cats. <i>European Journal of Neuroscience</i> , 2014 , 39, 811-20	3.5	18
66	Measurement of forces at the tip of a cochlear implant during insertion. <i>IEEE Transactions on Biomedical Engineering</i> , 2014 , 61, 1177-86	5	17
65	Creating virtual electrodes with 2D current steering. <i>Journal of Neural Engineering</i> , 2018 , 15, 035002	5	16

64	Effects of deafness and cochlear implant use on temporal response characteristics in cat primary auditory cortex. <i>Hearing Research</i> , 2014 , 315, 1-9	3.9	16
63	A beamformer post-filter for cochlear implant noise reduction. <i>Journal of the Acoustical Society of America</i> , 2013 , 133, 2412-20	2.2	16
62	Effects of neonatal partial deafness and chronic intracochlear electrical stimulation on auditory and electrical response characteristics in primary auditory cortex. <i>Hearing Research</i> , 2009 , 257, 93-105	3.9	16
61	Current waveforms for neural stimulation-charge delivery with reduced maximum electrode voltage. <i>IEEE Transactions on Biomedical Engineering</i> , 2010 , 57, 2304-12	5	16
60	Fully tuneable stochastic resonance in cutaneous receptors. <i>Journal of Neurophysiology</i> , 2005 , 94, 928-33.2		16
59	Evaluation of focused multipolar stimulation for cochlear implants in long-term deafened cats. <i>Journal of Neural Engineering</i> , 2015 , 12, 036003	5	15
58	Chronic intracochlear electrical stimulation at high charge densities results in platinum dissolution but not neural loss or functional changes in vivo. <i>Journal of Neural Engineering</i> , 2019 , 16, 026009	5	15
57	Electrochemical and biological characterization of thin-film platinum-iridium alloy electrode coatings: a chronic in vivo study. <i>Journal of Neural Engineering</i> , 2020 , 17, 036012	5	14
56	A fully implantable rodent neural stimulator. <i>Journal of Neural Engineering</i> , 2012 , 9, 014001	5	14
55	Suprachoroidal electrical stimulation: effects of stimulus pulse parameters on visual cortical responses. <i>Journal of Neural Engineering</i> , 2013 , 10, 056011	5	14
54	Cortical activation following chronic passive implantation of a wide-field suprachoroidal retinal prosthesis. <i>Journal of Neural Engineering</i> , 2014 , 11, 046017	5	13
53	Gentamicin Applied to the Oval Window Suppresses Vestibular Function in Guinea Pigs. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2017 , 18, 291-299	3.3	12
52	Electrochemical and mechanical performance of reduced graphene oxide, conductive hydrogel, and electrodeposited Pt-Ir coated electrodes: an active in vitro study. <i>Journal of Neural Engineering</i> , 2019 , 17, 016015	5	12
51	Neurotrophin gene augmentation by electrotransfer to improve cochlear implant hearing outcomes. <i>Hearing Research</i> , 2019 , 380, 137-149	3.9	11
50	Spatiotemporal interactions in the visual cortex following paired electrical stimulation of the retina. <i>Investigative Ophthalmology and Visual Science</i> , 2014 , 55, 7726-38		11
49	An automated system for rapid evaluation of high-density electrode arrays in neural prostheses. <i>Journal of Neural Engineering</i> , 2011 , 8, 036011	5	11
48	Combined optogenetic and electrical stimulation of auditory neurons increases effective stimulation frequency-an in vitro study. <i>Journal of Neural Engineering</i> , 2020 , 17, 016069	5	10
47	Summing responses of cat soleus muscle spindles to combined static and dynamic fusimotor stimulation(1). <i>Brain Research</i> , 2001 , 888, 348-355	3.7	10

46	Gaze Compensation as a Technique for Improving Hand-Eye Coordination in Prosthetic Vision. <i>Translational Vision Science and Technology</i> , 2018 , 7, 2	3.3	10
45	Electrophysiological channel interactions using focused multipolar stimulation for cochlear implants. <i>Journal of Neural Engineering</i> , 2015 , 12, 066005	5	9
44	Platinum dissolution and tissue response following long-term electrical stimulation at high charge densities. <i>Journal of Neural Engineering</i> , 2021 ,	5	9
43	Neural Electrodes Based on 3D Organic Electroactive Microfibers. <i>Advanced Functional Materials</i> , 2018 , 28, 1700927	15.6	9
42	Evaluation of focused multipolar stimulation for cochlear implants: a preclinical safety study. <i>Journal of Neural Engineering</i> , 2017 , 14, 046020	5	8
41	Objective measurement of tinnitus using functional near-infrared spectroscopy and machine learning. <i>PLoS ONE</i> , 2020 , 15, e0241695	3.7	8
40	Optical stimulation of neural tissue. <i>Healthcare Technology Letters</i> , 2020 , 7, 58-65	1.9	8
39	Electrically conducting diamond films grown on platinum foil for neural stimulation. <i>Journal of Neural Engineering</i> , 2019 , 16, 066002	5	7
38	Oculomotor Responses to Dynamic Stimuli in a 44-Channel Suprachoroidal Retinal Prosthesis. <i>Translational Vision Science and Technology</i> , 2020 , 9, 31	3.3	7
37	Second spatial derivative analysis of cortical surface potentials recorded in cat primary auditory cortex using thin film surface arrays: Comparisons with multi-unit data. <i>Journal of Neuroscience Methods</i> , 2016 , 267, 14-20	3	7
36	Temporal Coding of Voice Pitch Contours in Mandarin Tones. <i>Frontiers in Neural Circuits</i> , 2018 , 12, 55	3.5	7
35	Hybrid optogenetic and electrical stimulation for greater spatial resolution and temporal fidelity of cochlear activation. <i>Journal of Neural Engineering</i> , 2020 , 17, 056046	5	6
34	Vagus nerve stimulation to treat inflammatory bowel disease: a chronic, preclinical safety study in sheep. <i>Bioelectronics in Medicine</i> , 2018 , 1, 235-250	2.1	6
33	Differential effects of vagus nerve stimulation strategies on glycemia and pancreatic secretions. <i>Physiological Reports</i> , 2020 , 8, e14479	2.6	5
32	Preclinical evaluation of a miniaturized Deep Brain Stimulation electrode lead. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2015 , 2015, 6908-11	0.9	5
31	Effect of embedded optical fibres on the mechanical properties of cochlear electrode arrays. <i>Medical Engineering and Physics</i> , 2016 , 38, 155-62	2.4	5
30	Principles of Recording from and Electrical Stimulation of Neural Tissue 2016 , 89-120		5
29	The effect of muscle contraction on kinaesthesia. <i>Advances in Experimental Medicine and Biology</i> , 2002 , 508, 87-94	3.6	5

28	An objective diagnostic method for inflammatory bowel disease. <i>Royal Society Open Science</i> , 2018 , 5, 180107	3.3	4
27	Head and Gaze Behavior in Retinitis Pigmentosa 2019 , 60, 2263-2273		4
26	Behavioral frequency discrimination ability of partially deafened cats using cochlear implants. <i>Hearing Research</i> , 2014 , 315, 61-6	3.9	4
25	Wireless induction coils embedded in diamond for power transfer in medical implants. <i>Biomedical Microdevices</i> , 2017 , 19, 79	3.7	4
24	An automated psychoacoustic testing apparatus for use in cats. <i>Hearing Research</i> , 2014 , 309, 1-7	3.9	4
23	ATP suppresses activity in slowly adapting but not rapidly adapting mechanoreceptors in toad skin. <i>NeuroReport</i> , 2002 , 13, 1443-6	1.7	4
22	Pharmacokinetics and tissue distribution of neurotrophin 3 after intracochlear delivery. <i>Journal of Controlled Release</i> , 2019 , 299, 53-63	11.7	4
21	Effect of current focusing on the sensitivity of inferior colliculus neurons to amplitude-modulated stimulation. <i>Journal of Neurophysiology</i> , 2016 , 116, 1104-16	3.2	3
20	Algorithms to improve listening in noise for cochlear implant users 2013 ,		3
19	Cochlear implants. <i>Handbook of Clinical Neurophysiology</i> , 2013 , 315-331		3
18	Electrophysiological recording of electrically-evoked compound action potentials v1		3
17	Chronic intracochlear electrical stimulation at high charge densities: reducing platinum dissolution. <i>Journal of Neural Engineering</i> , 2020 , 17, 056009	5	3
16	Laminin coated diamond electrodes for neural stimulation. <i>Materials Science and Engineering C</i> , 2021 , 118, 111454	8.3	3
15	Electrical Field Shaping Techniques in a Feline Model of Retinal Degeneration. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2018 , 2018, 1222-1225	0.9	3
14	On the neural basis of deep brain stimulation evoked resonant activity. <i>Biomedical Physics and Engineering Express</i> , 2019 , 5, 057001	1.5	2
13	Focused electrical stimulation using a single current source. <i>Journal of Neural Engineering</i> , 2018 , 15, 056018		2
12	Recording of Electrically Evoked Neural Activity and Bladder Pressure Responses in Awake Rats Chronically Implanted With a Pelvic Nerve Array. <i>Frontiers in Neuroscience</i> , 2020 , 14, 619275	5.1	2
11	Viral-mediated transduction of auditory neurons with opsins for optical and hybrid activation. <i>Scientific Reports</i> , 2021 , 11, 11229	4.9	2

10	Slim electrodes for improved targeting in deep brain stimulation. <i>Journal of Neural Engineering</i> , 2020 , 17, 026008	5	1
9	Perceptual effect of reverberation on multi-microphone noise reduction for cochlear implants 2015		1
8	Low-threshold afferent signalling of viscous loads during voluntary movements of the human digits. <i>NeuroReport</i> , 2008 , 19, 1049-54	1.7	1
7	Improving Deep Brain Stimulation Electrode Performance Through Use of Conductive Hydrogel Coatings. <i>Frontiers in Neuroscience</i> , 2021 , 15, 761525	5.1	1
6	Computational modelling of nerve stimulation and recording with peripheral visceral neural interfaces. <i>Journal of Neural Engineering</i> , 2021 , 18,	5	1
5	Provision of interaural time difference information in chronic intracochlear electrical stimulation enhances neural sensitivity to these differences in neonatally deafened cats. <i>Hearing Research</i> , 2021 , 406, 108253	3.9	1
4	Effects of chronic implantation and long-term stimulation of a cochlear implant in the partial hearing cat model.. <i>Hearing Research</i> , 2022 , 108470	3.9	0
3	Blood glucose modulation and safety of efferent vagus nerve stimulation in a type 2 diabetic rat model.. <i>Physiological Reports</i> , 2022 , 10, e15257	2.6	0
2	Transmural impedance detects graded changes of inflammation in experimental colitis. <i>Royal Society Open Science</i> , 2020 , 7, 191819	3.3	
1	SPARC: Minimally Invasive Recording of Neural Activity During Natural Voiding in Anaesthetized Rats. <i>FASEB Journal</i> , 2020 , 34, 1-1	0.9	