Robert K Shepherd

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180 80 7,909 51 h-index g-index citations papers 186 8,795 5.88 4.5 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
180	Clinical findings for a group of infants and young children with auditory neuropathy. <i>Ear and Hearing</i> , 1999 , 20, 238-52	3.4	309
179	Electrical stimulation of the auditory nerve: the effect of electrode position on neural excitation. Hearing Research, 1993 , 66, 108-20	3.9	282
178	Electrical stimulation of the auditory nerve. I. Correlation of physiological responses with cochlear status. <i>Hearing Research</i> , 1997 , 108, 112-44	3.9	232
177	Chronic electrical stimulation of the auditory nerve at high stimulus rates: a physiological and histopathological study. <i>Hearing Research</i> , 1997 , 105, 1-29	3.9	210
176	First-in-human trial of a novel suprachoroidal retinal prosthesis. <i>PLoS ONE</i> , 2014 , 9, e115239	3.7	201
175	Chronic depolarization enhances the trophic effects of brain-derived neurotrophic factor in rescuing auditory neurons following a sensorineural hearing loss. <i>Journal of Comparative Neurology</i> , 2005 , 486, 145-58	3.4	176
174	Sensorineural hearing loss during development: morphological and physiological response of the cochlea and auditory brainstem. <i>Hearing Research</i> , 1999 , 128, 147-65	3.9	169
173	Maturation of the cortical auditory evoked potential in infants and young children. <i>Hearing Research</i> , 2006 , 212, 185-202	3.9	165
172	Electrical stimulation of the auditory nerve: II. Effect of stimulus waveshape on single fibre response properties. <i>Hearing Research</i> , 1999 , 130, 171-88	3.9	145
171	Visual prostheses for the blind. <i>Trends in Biotechnology</i> , 2013 , 31, 562-71	15.1	139
170	Deafness-induced changes in the auditory pathway: implications for cochlear implants. <i>Audiology and Neuro-Otology</i> , 2001 , 6, 305-18	2.2	130
169	Profound hearing loss in the cat following the single co-administration of kanamycin and ethacrynic acid. <i>Hearing Research</i> , 1993 , 70, 205-15	3.9	122
168	Cochlear implants and brain plasticity. <i>Hearing Research</i> , 2008 , 238, 110-7	3.9	109
167	Cochlear pathology following chronic electrical stimulation of the auditory nerve: II. Deafened kittens. <i>Hearing Research</i> , 1994 , 81, 150-66	3.9	106
166	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
165	Effect of interphase gap and pulse duration on electrically evoked potentials is correlated with auditory nerve survival. <i>Hearing Research</i> , 2006 , 215, 47-55	3.9	103
164	Response of the primary auditory cortex to electrical stimulation of the auditory nerve in the congenitally deaf white cat. <i>Hearing Research</i> , 1997 , 112, 115-33	3.9	102

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163	Neurotrophins and electrical stimulation for protection and repair of spiral ganglion neurons following sensorineural hearing loss. <i>Hearing Research</i> , 2008 , 242, 100-9	3.9	101
162	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
161	Effects of localized neurotrophin gene expression on spiral ganglion neuron resprouting in the deafened cochlea. <i>Molecular Therapy</i> , 2010 , 18, 1111-22	11.7	99
160	Fate of embryonic stem cells transplanted into the deafened mammalian cochlea. <i>Cell Transplantation</i> , 2006 , 15, 369-80	4	95
159	Electrical stimulation of the auditory nerve: direct current measurement in vivo. <i>IEEE Transactions on Biomedical Engineering</i> , 1999 , 46, 461-70	5	95
158	Exogenous BDNF rescues rat spiral ganglion neurons in vivo. <i>Otology and Neurotology</i> , 2005 , 26, 1064-7	'2 .6	93
157	Electrical stimulation of the auditory nerve. III. Response initiation sites and temporal fine structure. <i>Hearing Research</i> , 2000 , 140, 45-76	3.9	91
156	Promoting neurite outgrowth from spiral ganglion neuron explants using polypyrrole/BDNF-coated electrodes. <i>Journal of Biomedical Materials Research - Part A</i> , 2009 , 91, 241-50	5.4	89
155	An in vitro model for investigating impedance changes with cell growth and electrical stimulation: implications for cochlear implants. <i>Journal of Neural Engineering</i> , 2004 , 1, 218-27	5	83
154	Clinical application of neurotrophic factors: the potential for primary auditory neuron protection. <i>European Journal of Neuroscience</i> , 2005 , 22, 2123-33	3.5	83
153	Cochlear pathology following chronic electrical stimulation of the auditory nerve. I: Normal hearing kittens. <i>Hearing Research</i> , 1992 , 62, 63-81	3.9	83
152	Long-term sensorineural hearing loss induces functional changes in the rat auditory nerve. <i>European Journal of Neuroscience</i> , 2004 , 20, 3131-40	3.5	82
151	Response of inferior colliculus neurons to electrical stimulation of the auditory nerve in neonatally deafened cats. <i>Journal of Neurophysiology</i> , 1999 , 82, 1363-80	3.2	72
150	Dimensions of the scala tympani in the human and cat with reference to cochlear implants. <i>Annals of Otology, Rhinology and Laryngology</i> , 1990 , 99, 871-6	2.1	72
149	Neurotrophic factors and neural prostheses: potential clinical applications based upon findings in the auditory system. <i>IEEE Transactions on Biomedical Engineering</i> , 2007 , 54, 1138-48	5	71
148	Survival of partially differentiated mouse embryonic stem cells in the scala media of the guinea pig cochlea. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2005 , 6, 341-54	3.3	71
147	A wide-field suprachoroidal retinal prosthesis is stable and well tolerated following chronic implantation 2013 , 54, 3751-62		70
146	Enhanced auditory neuron survival following cell-based BDNF treatment in the deaf guinea pig. <i>PLoS ONE</i> , 2011 , 6, e18733	3.7	70

145	Electrical stimulation of the auditory nerve in deaf kittens: effects on cochlear nucleus morphology. Hearing Research, 1991 , 56, 133-42	3.9	69
144	Evaluation of stimulus parameters and electrode geometry for an effective suprachoroidal retinal prosthesis. <i>Journal of Neural Engineering</i> , 2010 , 7, 036008	5	65
143	Nanoporous peptide particles for encapsulating and releasing neurotrophic factors in an animal model of neurodegeneration. <i>Advanced Materials</i> , 2012 , 24, 3362-6	24	64
142	Combining cell-based therapies and neural prostheses to promote neural survival. Neurotherapeutics, 2011, 8, 774-87	6.4	64
141	The histopathology of the human temporal bone and auditory central nervous system following cochlear implantation in a patient. Correlation with psychophysics and speech perception results. <i>Acta Oto-Laryngologica</i> , 1988 , 448, 1-65	1.6	61
140	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
139	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
138	Aminoglycoside-induced degeneration of adult spiral ganglion neurons involves differential modulation of tyrosine kinase B and p75 neurotrophin receptor signaling. <i>American Journal of Pathology</i> , 2006 , 169, 528-43	5.8	57
137	Electrical Stimulation Promotes Cardiac Differentiation of Human Induced Pluripotent Stem Cells. <i>Stem Cells International</i> , 2016 , 2016, 1718041	5	57
136	Effects of chronic electrical stimulation on spiral ganglion neuron survival and size in deafened kittens. <i>Laryngoscope</i> , 1998 , 108, 687-95	3.6	56
135	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
134	Stimulus induced pH changes in cochlear implants: an in vitro and in vivo study. <i>Annals of Biomedical Engineering</i> , 2001 , 29, 791-802	4.7	54
133	Schwann cells genetically modified to express neurotrophins promote spiral ganglion neuron survival in vitro. <i>Neuroscience</i> , 2008 , 152, 821-8	3.9	53
132	Mice deficient for the type II transmembrane serine protease, TMPRSS1/hepsin, exhibit profound hearing loss. <i>American Journal of Pathology</i> , 2007 , 171, 608-16	5.8	53
131	Chronic electrical stimulation of the auditory nerve using non-charge-balanced stimuli. <i>Acta Oto-Laryngologica</i> , 1999 , 119, 674-84	1.6	53
130	A fully implantable stimulator for use in small laboratory animals. <i>Journal of Neuroscience Methods</i> , 2007 , 166, 168-77	3	51
129	Reduction in excitability of the auditory nerve following electrical stimulation at high stimulus rates. <i>Hearing Research</i> , 1995 , 88, 124-42	3.9	51
128	Deafness alters auditory nerve fibre responses to cochlear implant stimulation. <i>European Journal of Neuroscience</i> , 2007 , 26, 510-22	3.5	49

(2011-2002)

127	A multichannel scala tympani electrode array incorporating a drug delivery system for chronic intracochlear infusion. <i>Hearing Research</i> , 2002 , 172, 92-8	3.9	49	
126	Cochlear pathology following chronic electrical stimulation using non charge balanced stimuli. <i>Acta Oto-Laryngologica</i> , 1991 , 111, 848-60	1.6	49	
125	The effect of deafness duration on neurotrophin gene therapy for spiral ganglion neuron protection. <i>Hearing Research</i> , 2011 , 278, 69-76	3.9	48	
124	Surface microstructure of the perilymphatic space: implications for cochlear implants and cell- or drug-based therapies. <i>JAMA Otolaryngology</i> , 2004 , 130, 518-23		47	
123	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	
122	Neonatal sensorineural hearing loss affects synaptic density in the auditory midbrain. <i>NeuroReport</i> , 1998 , 9, 2019-22	1.7	46	
121	The development of encapsulated cell technologies as therapies for neurological and sensory diseases. <i>Journal of Controlled Release</i> , 2012 , 160, 3-13	11.7	45	
120	Changes in biphasic electrode impedance with protein adsorption and cell growth. <i>Journal of Neural Engineering</i> , 2010 , 7, 056011	5	44	
119	Impedance changes in chronically implanted and stimulated cochlear implant electrodes. <i>Cochlear Implants International</i> , 2014 , 15, 191-9	1.7	43	
118	Improved Auditory Nerve Survival with Nanoengineered Supraparticles for Neurotrophin Delivery into the Deafened Cochlea. <i>PLoS ONE</i> , 2016 , 11, e0164867	3.7	43	
117	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	
116	Onset of ototoxicity in the cat is related to onset of auditory function. <i>Hearing Research</i> , 1995 , 92, 131-	43 .9	41	
115	In vivo and in vitro comparison of the charge injection capacity of platinum macroelectrodes. <i>IEEE Transactions on Biomedical Engineering</i> , 2015 , 62, 849-57	5	40	
114	Concise review: the potential of stem cells for auditory neuron generation and replacement. <i>Stem Cells</i> , 2007 , 25, 2685-94	5.8	40	
113	Neurotrophin gene therapy for sustained neural preservation after deafness. <i>PLoS ONE</i> , 2012 , 7, e5233	18 3.7	38	
112	Mesoporous silica supraparticles for sustained inner-ear drug delivery. <i>Small</i> , 2014 , 10, 4244-8	11	37	
111	The development of neural stimulators: a review of preclinical safety and efficacy studies. <i>Journal of Neural Engineering</i> , 2018 , 15, 041004	5	36	
110	An improved cochlear implant electrode array for use in experimental studies. <i>Hearing Research</i> , 2011 , 277, 20-7	3.9	35	

109	Development of a surgical procedure for implantation of a prototype suprachoroidal retinal prosthesis. <i>Clinical and Experimental Ophthalmology</i> , 2014 , 42, 665-74	2.4	34
108	A protocol for cryoembedding the adult guinea pig cochlea for fluorescence immunohistology. Journal of Neuroscience Methods, 2009 , 176, 144-51	3	34
107	Synaptic plasticity after chemical deafening and electrical stimulation of the auditory nerve in cats. Journal of Comparative Neurology, 2010 , 518, 1046-63	3.4	34
106	Cochleotopic selectivity of a multichannel scala tympani electrode array using the 2-deoxyglucose technique. <i>Hearing Research</i> , 1992 , 59, 224-40	3.9	34
105	Chronic electrical stimulation with a suprachoroidal retinal prosthesis: a preclinical safety and efficacy study. <i>PLoS ONE</i> , 2014 , 9, e97182	3.7	34
104	Development of a surgical approach for a wide-view suprachoroidal retinal prosthesis: evaluation of implantation trauma. <i>Graefers Archive for Clinical and Experimental Ophthalmology</i> , 2012 , 250, 399-40	07 ^{3.8}	33
103	Cochlear implantation in rats: a new surgical approach. <i>Hearing Research</i> , 2005 , 205, 115-22	3.9	33
102	Neural prostheses and brain plasticity. <i>Journal of Neural Engineering</i> , 2009 , 6, 065008	5	32
101	Scanning electron microscopy of chronically stimulated platinum intracochlear electrodes. <i>Biomaterials</i> , 1985 , 6, 237-42	15.6	32
100	Electrical stimulation causes rapid changes in electrode impedance of cell-covered electrodes. Journal of Neural Engineering, 2011 , 8, 036029	5	31
99	Distortion product otoacoustic emission and auditory brainstem responses in the echidna (Tachyglossus aculeatus) 2001 , 2, 130-46		31
98	Progressive ototoxicity of neomycin monitored using derived brainstem response audiometry. Hearing Research, 1985 , 18, 105-10	3.9	31
97	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
96	Surgery for an improved multiple-channel cochlear implant. <i>Annals of Otology, Rhinology and Laryngology</i> , 1984 , 93, 204-7	2.1	30
95	Surgical access to the mammalian cochlea for cell-based therapies. <i>Experimental Neurology</i> , 2008 , 214, 193-200	5.7	29
94	Anti-inflammatory Effects of Abdominal Vagus Nerve Stimulation on Experimental Intestinal Inflammation. <i>Frontiers in Neuroscience</i> , 2019 , 13, 418	5.1	28
93	Schwann cells revert to non-myelinating phenotypes in the deafened rat cochlea. <i>European Journal of Neuroscience</i> , 2007 , 26, 1813-21	3.5	28
92	ATP-induced photoreceptor death in a feline model of retinal degeneration. <i>Investigative Ophthalmology and Visual Science</i> , 2014 , 55, 8319-29		27

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91	Reduction in excitability of the auditory nerve following electrical stimulation at high stimulus rates. II. Comparison of fixed amplitude with amplitude modulated stimuli. <i>Hearing Research</i> , 1997 , 3.9 112, 147-57	27	
90	Reduction in excitability of the auditory nerve following electrical stimulation at high stimulus rates: V. Effects of electrode surface area. <i>Hearing Research</i> , 2000 , 146, 57-71	27	
89	Reduction in excitability of the auditory nerve following electrical stimulation at high stimulus rates. IV. Effects of stimulus intensity. <i>Hearing Research</i> , 1999 , 132, 60-8	27	
88	New molecular therapies for the treatment of hearing loss. <i>Pharmacology & Therapeutics</i> , 2019 , 200, 190-209	26	
87	Reduction in excitability of the auditory nerve following acute electrical stimulation at high stimulus rates: III. Capacitive versus non-capacitive coupling of the stimulating electrodes. <i>Hearing Research</i> , 1998 , 116, 55-64	26	
86	Synergy between TGF-beta 3 and NT-3 to promote the survival of spiral ganglia neurones in vitro. Neuroscience Letters, 1998, 240, 77-80	26	
85	Cochlear implants stimulate activity-dependent CREB pathway in the deaf auditory cortex: implications for molecular plasticity induced by neural prosthetic devices. <i>Cerebral Cortex</i> , 2008 , 18, 1799-813	3 ²⁶	
84	Delivery of plant-made vaccines and therapeutics. <i>Biotechnology Advances</i> , 2012 , 30, 440-8 17.8	25	
83	Electrical stimulation of the auditory nerve: single neuron strength-duration functions in deafened animals. <i>Annals of Biomedical Engineering</i> , 2001 , 29, 195-201	25	
82	Hearing, vocalization and the external ear of a marsupial, the northern Quoll, Dasyurus hallucatus. <i>Journal of Comparative Neurology</i> , 1994 , 349, 377-88	25	
81	Surgical and safety considerations of multichannel cochlear implants in children. <i>Ear and Hearing</i> , 1991 , 12, 15S-24S	25	
80	Drug Delivery: Mesoporous Silica Supraparticles for Sustained Inner-Ear Drug Delivery (Small 21/2014). <i>Small</i> , 2014 , 10, 4243-4243	24	
79	Evaluation of focused multipolar stimulation for cochlear implants in acutely deafened cats. <i>Journal of Neural Engineering</i> , 2014 , 11, 065003	24	
78	Can we prevent cochlear implant recipients from developing pneumococcal meningitis?. <i>Clinical Infectious Diseases</i> , 2008 , 46, e1-7	24	
77	Basis of electrical stimulation of the cochlea and the cochlear nucleus. <i>Advances in Oto-Rhino-Laryngology</i> , 2006 , 64, 186-205	24	
76	Neonatal sensorineural hearing loss affects neurone size in cat auditory midbrain. <i>Hearing Research</i> , 2000 , 140, 18-22	23	
75	Safety Studies for a 44-Channel Suprachoroidal Retinal Prosthesis: A Chronic Passive Study 2018 , 59, 1410-1424	23	
74	Cochlear implantation in children: labyrinthitis following pneumococcal otitis media in unimplanted and implanted cat cochleas. <i>Acta Oto-Laryngologica</i> , 1994 , 114, 620-5	22	

73	Cochlear immunochemistrya new technique based on gelatin embedding. <i>Journal of Neuroscience Methods</i> , 2003 , 129, 81-6	3	21
7²	Chronic placental insufficiency has long-term effects on auditory function in the guinea pig. <i>Hearing Research</i> , 2002 , 166, 159-65	3.9	21
71	Electrochemical and biological performance of chronically stimulated conductive hydrogel electrodes. <i>Journal of Neural Engineering</i> , 2020 , 17, 026018	5	20
70	Functional and morphological response of the stria vascularis following a sensorineural hearing loss. <i>Hearing Research</i> , 2002 , 172, 127-36	3.9	20
69	Gel-Mediated Electrospray Assembly of Silica Supraparticles for Sustained Drug Delivery. <i>ACS Applied Materials & Delivery (Natural Science)</i> , 10, 31019-31031	9.5	20
68	Bilateral cochlear implantation in the ferret: a novel animal model for behavioral studies. <i>Journal of Neuroscience Methods</i> , 2010 , 190, 214-28	3	19
67	Cochlear implantation for chronic electrical stimulation in the mouse. <i>Hearing Research</i> , 2013 , 306, 37-4	153.9	18
66	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
65	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
64	Pneumococcal meningitis: development of a new animal model. <i>Otology and Neurotology</i> , 2006 , 27, 84	1-5 . 6	18
63	Effect of chronic electrical stimulation on cochlear nucleus neuron size in normal hearing kittens. <i>Acta Oto-Laryngologica</i> , 1993 , 113, 489-97	1.6	18
62	Cell-based neurotrophin treatment supports long-term auditory neuron survival in the deaf guinea pig. <i>Journal of Controlled Release</i> , 2015 , 198, 26-34	11.7	17
61	Mold-templated inorganic-organic hybrid supraparticles for codelivery of drugs. <i>Biomacromolecules</i> , 2014 , 15, 4146-51	6.9	17
60	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
59	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
58	Challenges for stem cells to functionally repair the damaged auditory nerve. <i>Expert Opinion on Biological Therapy</i> , 2013 , 13, 85-101	5.4	16
57	Hydrogel limits stem cell dispersal in the deaf cochlea: implications for cochlear implants. <i>Journal of Neural Engineering</i> , 2012 , 9, 065001	5	16
56	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

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55	Assessment of the protective effect of pneumococcal vaccination in preventing meningitis after cochlear implantation. <i>JAMA Otolaryngology</i> , 2007 , 133, 987-94		16
54	Threshold shift: effects of cochlear implantation on the risk of pneumococcal meningitis. Otolaryngology - Head and Neck Surgery, 2007 , 136, 589-96	5.5	16
53	Stimulation of a Suprachoroidal Retinal Prosthesis Drives Cortical Responses in a Feline Model of Retinal Degeneration 2016 , 57, 5216-5229		16
52	Electrochemical Principles of Safe Charge Injection 2016 , 55-88		16
51	Evaluation of focused multipolar stimulation for cochlear implants in long-term deafened cats. <i>Journal of Neural Engineering</i> , 2015 , 12, 036003	5	15
50	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
49	Effects of inner ear trauma on the risk of pneumococcal meningitis. <i>JAMA Otolaryngology</i> , 2007 , 133, 250-9		15
48	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
47	A fully implantable rodent neural stimulator. <i>Journal of Neural Engineering</i> , 2012 , 9, 014001	5	14
46	Suprachoroidal electrical stimulation: effects of stimulus pulse parameters on visual cortical responses. <i>Journal of Neural Engineering</i> , 2013 , 10, 056011	5	14
45	Pneumococcal meningitis threshold model: A potential tool to assess infectious risk of new or existing inner ear surgical interventions. <i>Otology and Neurotology</i> , 2006 , 27, 1152-61	2.6	14
44	Cortical activation following chronic passive implantation of a wide-field suprachoroidal retinal prosthesis. <i>Journal of Neural Engineering</i> , 2014 , 11, 046017	5	13
43	The release and induced immune responses of a plant-made and delivered antigen in the mouse gut. <i>Current Drug Delivery</i> , 2011 , 8, 612-21	3.2	13
42	Retinal Changes in an ATP-Induced Model of Retinal Degeneration. <i>Frontiers in Neuroanatomy</i> , 2016 , 10, 46	3.6	13
41	Effects of intracochlear factors on spiral ganglion cells and auditory brain stem response after long-term electrical stimulation in deafened kittens. <i>Otolaryngology - Head and Neck Surgery</i> , 2000 , 122, 425-33	5.5	12
40	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
39	Neurotrophin gene augmentation by electrotransfer to improve cochlear implant hearing outcomes. <i>Hearing Research</i> , 2019 , 380, 137-149	3.9	11
38	A partial hearing animal model for chronic electro-acoustic stimulation. <i>Journal of Neural Engineering</i> , 2014 , 11, 046008	5	11

37	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
36	Pneumococcal meningitis post-cochlear implantation: potential routes of infection and pathophysiology. <i>Otolaryngology - Head and Neck Surgery</i> , 2010 , 143, S15-23	5.5	11
35	The Postnatal Growth of the Temporal Bone and its Implications for Cochlear Implantation in Children. <i>Acta Oto-Laryngologica</i> , 1993 , 113, 4-39	1.6	11
34	Safety and efficacy of explanting or replacing suprachoroidal electrode arrays in a feline model. <i>Clinical and Experimental Ophthalmology</i> , 2015 , 43, 247-58	2.4	10
33	Development of a cell-based treatment for long-term neurotrophin expression and spiral ganglion neuron survival. <i>Neuroscience</i> , 2014 , 277, 690-9	3.9	10
32	Pneumococcal meningitis post-cochlear implantation: preventative measures. <i>Otolaryngology</i> - <i>Head and Neck Surgery</i> , 2010 , 143, S9-14	5.5	10
31	Development of a Magnetic Attachment Method for Bionic Eye Applications. <i>Artificial Organs</i> , 2016 , 40, E12-24	2.6	9
30	Electrophysiological channel interactions using focused multipolar stimulation for cochlear implants. <i>Journal of Neural Engineering</i> , 2015 , 12, 066005	5	9
29	Platinum dissolution and tissue response following long-term electrical stimulation at high charge densities. <i>Journal of Neural Engineering</i> , 2021 ,	5	9
28	Evaluation of focused multipolar stimulation for cochlear implants: a preclinical safety study. <i>Journal of Neural Engineering</i> , 2017 , 14, 046020	5	8
27	Implanted Material Tolerance Studies for a Multiple-channel Cochlear Prosthesis. <i>Acta Oto-Laryngologica</i> , 1984 , 98, 71-81	1.6	8
26	Partial hearing loss in the macaque following the co-administration of kanamycin and ethacrynic acid. <i>Hearing Research</i> , 1994 , 72, 89-98	3.9	7
25	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
24	Gene therapy boosts the bionic ear. <i>Science Translational Medicine</i> , 2014 , 6, 233fs17	17.5	6
23	Protective effects of local administration of ciprofloxacin on the risk of pneumococcal meningitis after cochlear implantation. <i>Laryngoscope</i> , 2006 , 116, 2138-44	3.6	6
22	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
21	The Historical Foundations of Bionics 2016 , 1-37		5
20	Principles of Recording from and Electrical Stimulation of Neural Tissue 2016 , 89-120		5

19	Wireless Neurotechnology for Neural Prostheses 2016 , 123-161		5
18	An objective diagnostic method for inflammatory bowel disease. <i>Royal Society Open Science</i> , 2018 , 5, 180107	3.3	4
17	Rescuing the Cochlea: the challenges 2011 , 19, 49-52		4
16	Techniques for processing eyes implanted with a retinal prosthesis for localized histopathological analysis: Part 2 Epiretinal implants with retinal tacks. <i>Journal of Visualized Experiments</i> , 2015 ,	1.6	3
15	Cochlear implants. Handbook of Clinical Neurophysiology, 2013, 315-331		3
14	Chronic intracochlear electrical stimulation at high charge densities: reducing platinum dissolution. <i>Journal of Neural Engineering</i> , 2020 , 17, 056009	5	3
13	Ethical Considerations in the Development of Neural Prostheses 2016 , 294-318		3
12	Preclinical testing of Neural Prostheses 2016 , 162-185		3
11	Focused electrical stimulation using a single current source. Journal of Neural Engineering, 2018, 15, 05	6 G 18	2
10	Effects of intracochlear factors on spiral ganglion cells and auditory brain stem response after long-term electrical stimulation in deafened kittens. <i>Otolaryngology - Head and Neck Surgery</i> , 2000 , 122, 425-433	5.5	2
9	In vivo feasibility of epiretinal stimulation using ultrananocrystalline diamond electrodes. <i>Journal of Neural Engineering</i> , 2020 , 17, 045014	5	2
8	Brain Computer Interfaces 2016 , 231-263		2
7	A Tissue Engineering Chamber for Continuous Pulsatile Electrical Stimulation of Vascularized Cardiac Tissues. <i>Bioelectricity</i> , 2020 , 2, 391-398	2	1
6	Integrative Neuronal Functions in Deafness. Springer Handbook of Auditory Research, 2013, 151-187	1.2	1
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