Eric M Rouiller

List of Publications by Year
in descending order

88 papers	5,289 citations	109321 35 h-index	91884 69 g-index
90 all docs	90 docs citations	90 times ranked	4459 citing authors

#	Article	IF	Citations
1	Epidural electrical stimulation of the cervical dorsal roots restores voluntary upper limb control in paralyzed monkeys. Nature Neuroscience, 2022, 25, 924-934.	14.8	30
2	Intrafascicular peripheral nerve stimulation produces fine functional hand movements in primates. Science Translational Medicine, 2021, 13, eabg6463.	12.4	30
3	Bayesian optimization of peripheral intraneural stimulation protocols to evoke distal limb movements. Journal of Neural Engineering, 2021, 18, 066046.	3.5	9
4	Combined with antiâ€Nogoâ€A antibody treatment, BDNF did not compensate the extra deleterious motor effect caused by large size cervical cord hemisection in adult macaques. CNS Neuroscience and Therapeutics, 2020, 26, 260-269.	3.9	5
5	Cortical Projection From the Premotor or Primary Motor Cortex to the Subthalamic Nucleus in Intact and Parkinsonian Adult Macaque Monkeys: A Pilot Tracing Study. Frontiers in Neural Circuits, 2020, 14, 528993.	2.8	7
6	Cutaneous Inputs to Dorsal Column Nuclei in Adult Macaque Monkeys Subjected to Unilateral Lesion of the Primary Motor Cortex or of the Cervical Spinal Cord and Treatments Promoting Axonal Growth. Neuroscience Insights, 2020, 15, 263310552097399.	1.6	0
7	Assessment of the effect of continuous theta burst stimulation of the motor cortex on manual dexterity in nonâ€human primates in a direct comparison with invasive intracortical pharmacological inactivation. European Journal of Neuroscience, 2019, 50, 3599-3613.	2.6	2
8	Fine Manual Dexterity Assessment After Autologous Neural Cell Ecosystem (ANCE) Transplantation in a Non-human Primate Model of Parkinsonâ€™s Disease. Neurorehabilitation and Neural Repair, 2019, 33, 553-567.	2.9	6
9	Corticotectal Projections From the Premotor or Primary Motor Cortex After Cortical Lesion or Parkinsonian Symptoms in Adult Macaque Monkeys: A Pilot Tracing Study. Frontiers in Neuroanatomy, 2019, 13, 50.	1.7	6
10	Diversity of Cortico-descending Projections: Histological and Diffusion MRI Characterization in the Monkey. Cerebral Cortex, 2019, 29, 788-801.	2.9	27
11	Selective Recruitment of Arm Motoneurons in Nonhuman Primates Using Epidural Electrical Stimulation of the Cervical Spinal Cord. , 2018, 2018, 1424-1427.		10
12	Changes of motor corticobulbar projections following different lesion types affecting the central nervous system in adult macaque monkeys. European Journal of Neuroscience, 2018, 48, 2050-2070.	2.6	21
13	Corticobulbar projections from distinct motor cortical areas to the reticular formation in macaque monkeys. European Journal of Neuroscience, 2017, 45, 1379-1395.	2.6	69
14	Role of primary motor cortex in the control of manual dexterity assessed via sequential bilateral lesion in the adult macaque monkey: A case study. Neuroscience, 2017, 357, 303-324.	2.3	12
15	Ipsilateral corticotectal projections from the primary, premotor and supplementary motor cortical areas in adult macaque monkeys: a quantitative anterograde tracing study. European Journal of Neuroscience, 2017, 46, 2406-2415.	2.6	13
16	Effects of dorsolateral prefrontal cortex lesion on motor habit and performance assessed with manual grasping and control of force in macaque monkeys. Brain Structure and Function, 2017, 222, 1193-1206.	2.3	17
17	Enhancement of Striatal Dopaminergic Function Following Autologous Neural Cell Ecosystems (ANCE) Transplantation in a Non-Human Primate Model of Parkinsonâ€™s Disease. , 2017, 7, .		3
18	The Crossed Projection to the Striatum in Two Species of Monkey and in Humans: Behavioral and Evolutionary Significance. Cerebral Cortex, 2016, 27, bhw161.	2.9	30

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19	Use-Dependent Cortical Processing from Fingertips in Touchscreen Phone Users. Current Biology, 2015, 25, 109-116.	3.9	92
20	Whole-scalp EEG mapping of somatosensory evoked potentials in macaque monkeys. Brain Structure and Function, 2015, 220, 2121-2142.	2.3	7
21	Refined methodology for implantation of a head fixation device and chronic recording chambers in non-human primates. Journal of Neuroscience Methods, 2013, 219, 262-270.	2.5	24
22	Representation of motor habit in a sequence of repetitive reach and grasp movements performed by macaque monkeys: Evidence for a contribution of the dorsolateral prefrontal cortex. Cortex, 2013, 49, 1404-1419.	2.4	11
23	Long-term motor cortical map changes following unilateral lesion of the hand representation in the motor cortex in macaque monkeys showing functional recovery of hand functions. Restorative Neurology and Neuroscience, 2013, 31, 733-760.	0.7	20
24	Comparison of Functional Recovery of Manual Dexterity after Unilateral Spinal Cord Lesion or Motor Cortex Lesion in Adult Macaque Monkeys. Frontiers in Neurology, 2013, 4, 101.	2.4	32
25	Distinction between hand dominance and hand preference in primates: a behavioral investigation of manual dexterity in nonhuman primates (macaques) and human subjects. Brain and Behavior, 2013, 3, 575-595.	2.2	21
26	Invasion of lesion territory by regenerating fibers after spinal cord injury in adult macaque monkeys. Neuroscience, 2012, 227, 271-282.	2.3	17
27	Influence of anti-Nogo-A antibody treatment on the reorganization of callosal connectivity of the premotor cortical areas following unilateral lesion of primary motor cortex (M1) in adult macaque monkeys. Experimental Brain Research, 2012, 223, 321-340.	1.5	21
28	Short-term effects of unilateral lesion of the primary motor cortex (M1) on ipsilesional hand dexterity in adult macaque monkeys. Brain Structure and Function, 2012, 217, 63-79.	2.3	22
29	Autologous Adult Cortical Cell Transplantation Enhances Functional Recovery Following Unilateral Lesion of Motor Cortex in Primates: A Pilot Study. Neurosurgery, 2011, 68, 1405-1417.	1.1	32
30	Doublecortinâ€positive cells in the adult primate cerebral cortex and possible role in brain plasticity and development. Journal of Comparative Neurology, 2011, 519, 775-789.	1.6	55
31	Behavioral Assessment of Manual Dexterity in Non-Human Primates. Journal of Visualized Experiments, 2011, , .	0.3	32
32	Follow-up of cortical activity and structure after lesion with laser speckle imaging and magnetic resonance imaging in nonhuman primates. Journal of Biomedical Optics, 2011, 16, 096011.	2.6	10
33	Auditory Cortical Projections to the Medial Geniculate Body. , 2011, , 171-188.		7
34	Cortical and Thalamic Pathways for Multisensory and Sensorimotor Interplay. Frontiers in Neuroscience, 2011, , 15-30.	0.0	6
35	Cortical and Thalamic Pathways for Multisensory and Sensorimotor Interplay. Frontiers in Neuroscience, 2011, , 15-30.	0.0	5
36	Effects of Unilateral Motor Cortex Lesion on Ipsilesional Hand's Reach and Grasp Performance in Monkeys: Relationship With Recovery in the Contralesional Hand. Journal of Neurophysiology, 2010, 103, 1630-1645.	1.8	40

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37	Multisensory Facilitation of Behavior in Monkeys: Effects of Stimulus Intensity. Journal of Cognitive Neuroscience, 2010, 22, 2850-2863.	2.3	31
38	The Thalamocortical Projection Systems in Primate: An Anatomical Support for Multisensory and Sensorimotor Interplay. Cerebral Cortex, 2009, 19, 2025-2037.	2.9	201
39	A case of polymicrogyria in macaque monkey: impact on anatomy and function of the motor system. BMC Neuroscience, 2009, 10, 155.	1.9	5
40	Antiâ€Nogoâ€A antibody treatment promotes recovery of manual dexterity after unilateral cervical lesion in adult primates â€“ reâ€examination and extension of behavioral data. European Journal of Neuroscience, 2009, 29, 983-996.	2.6	114
41	Multisensory anatomical pathways. Hearing Research, 2009, 258, 28-36.	2.0	176
42	Anti-Nogo-A antibody treatment does not prevent cell body shrinkage in the motor cortex in adult monkeys subjected to unilateral cervical cord lesion. BMC Neuroscience, 2008, 9, 5.	1.9	48
43	Fate of rubrospinal neurons after unilateral section of the cervical spinal cord in adult macaque monkeys: Effects of an antibody treatment neutralizing Nogo-A. Brain Research, 2008, 1217, 96-109.	2.2	18
44	Repair of the Injured Spinal Cord. Neurodegenerative Diseases, 2007, 4, 51-56.	1.4	37
45	Anti-Nogo-A antibody treatment enhances sprouting of corticospinal axons rostral to a unilateral cervical spinal cord lesion in adult macaque monkey. Journal of Comparative Neurology, 2007, 502, 644-659.	1.6	132
46	Can experiments in nonhuman primates expedite the translation of treatments for spinal cord injury in humans?. Nature Medicine, 2007, 13, 561-566.	30.7	403
47	Intrathecally infused antibodies against Nogo-A penetrate the CNS and downregulate the endogenous neurite growth inhibitor Nogo-A. Molecular and Cellular Neurosciences, 2006, 32, 161-173.	2.2	77
48	Reply to Challenges to the report of Nogo antibody effects in primates. Nature Medicine, 2006, 12, 1232-1233.	30.7	4
49	Nogo-Aâ€specific antibody treatment enhances sprouting and functional recovery after cervical lesion in adult primates. Nature Medicine, 2006, 12, 790-792.	30.7	298
50	Divergence and convergence of thalamocortical projections to premotor and supplementary motor cortex: a multiple tracing study in the macaque monkey. European Journal of Neuroscience, 2005, 21, 1007-1029.	2.6	77
51	Reduction of the hand representation in the ipsilateral primary motor cortex following unilateral section of the corticospinal tract at cervical level in monkeys. BMC Neuroscience, 2005, 6, 56.	1.9	33
52	Callosal connections of dorsal versus ventral premotor areas in the macaque monkey: a multiple retrograde tracing study. BMC Neuroscience, 2005, 6, 67.	1.9	83
53	A Unilateral Section of the Corticospinal Tract at Cervical Level in Primate Does Not Lead to Measurable Cell Loss in Motor Cortex. Journal of Neurotrauma, 2005, 22, 703-717.	3.4	82
54	Primate adult brain cell autotransplantation, a new tool for brain repair?. Experimental Neurology, 2005, 196, 195-198.	4.1	19

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55	Matching the Neural Adaptation in the Rat Ventral Cochlear Nucleus Produced by Artificial (Electric) and Acoustic Stimulation of the Cochlea. Audiology and Neuro-Otology, 2004, 9, 144-159.	1.3	13
56	Progressive plastic changes in the hand representation of the primary motor cortex parallel incomplete recovery from a unilateral section of the corticospinal tract at cervical level in monkeys. Brain Research, 2004, 1017, 172-183.	2.2	83
57	The dual pattern of corticothalamic projection of the primary auditory cortex in macaque monkey. Neuroscience Letters, 2004, 358, 49-52.	2.1	34
58	Functional recovery after lesions of the primary motor cortex. Progress in Brain Research, 2004, 143, 467-475.	1.4	12
59	The projection from auditory cortex to cochlear nucleus in guinea pigs: an in vivo anatomical and in vitro electrophysiological study. Experimental Brain Research, 2003, 153, 467-476.	1.5	39
60	Single-unit responses in the auditory cortex of monkeys performing a conditional acousticomotor task. Experimental Brain Research, 2003, 153, 614-627.	1.5	31
61	Discharge properties of identified cochlear nucleus neurons and auditory nerve fibers in response to repetitive electrical stimulation of the auditory nerve. Experimental Brain Research, 2003, 153, 452-460.	1.5	33
62	Effects of intensity of repetitive acoustic stimuli on neural adaptation in the ventral cochlear nucleus of the rat. Experimental Brain Research, 2003, 153, 436-442.	1.5	3
63	The dual pattern of corticothalamic projection of the premotor cortex in macaque monkeys. Thalamus & Related Systems, 2003, 2, 189.	0.5	9
64	Commissural glycinergic inhibition of bushy and stellate cells in the anteroventral cochlear nucleus. NeuroReport, 2002, 13, 555-558.	1.2	35
65	Neural adaptation to pulsatile acoustical stimulation in the cochlear nucleus of the rat. Hearing Research, 2002, 171, 72-81.	2.0	4
66	Origins of callosal projections to the supplementary motor area (SMA): A direct comparison between pre-SMA and SMA-proper in macaque monkeys. Journal of Comparative Neurology, 2002, 443, 71-85.	1.6	98
67	Projections of the claustrum to the primary motor, premotor, and prefrontal cortices in the macaque monkey. Journal of Comparative Neurology, 2002, 454, 140-157.	1.6	90
68	Parietal inputs to dorsal versus ventral premotor areas in the macaque monkey: evidence for largely segregated visuomotor pathways. Experimental Brain Research, 2002, 145, 91-103.	1.5	238
69	A comparative analysis of the morphology of corticothalamic projections in mammals. Brain Research Bulletin, 2000, 53, 727-741.	3.0	190
70	Mechanisms of recovery of dexterity following unilateral lesion of the sensorimotor cortex in adult monkeys. Experimental Brain Research, 1999, 128, 149-159.	1.5	224
71	c-Fos expression in the auditory pathways related to the significance of acoustic signals in rats performing a sensory-motor task. Brain Research, 1999, 841, 170-183.	2.2	41
72	Origin of thalamic inputs to the primary, premotor, and supplementary motor cortical areas and to area 46 in macaque monkeys: A multiple retrograde tracing study. , 1999, 409, 131-152.		90

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73	Preferential induction of fos-like immunoreactivity in granule cells of the cochlear nucleus by acoustic stimulation in behaving rats. Neuroscience Letters, 1999, 259, 123-126.	2.1	8
74	Inhibitory synaptic interactions between cochlear nuclei. NeuroReport, 1999, 10, 1913-1917.	1.2	24
75	Dual morphology and topography of the corticothalamic terminals originating from the primary, supplementary motor, and dorsal premotor cortical areas in Macaque monkeys. , 1998, 396, 169-185.		66
76	Dexterity in adult monkeys following early lesion of the motor cortical hand area: the role of cortex adjacent to the lesion. European Journal of Neuroscience, 1998, 10, 729-740.	2.6	133
77	Discharge properties of single neurons in the dorsal nucleus of the lateral lemniscus of the rat. Brain Research Bulletin, 1998, 47, 595-610.	3.0	27
78	Evidence for Direct Connections between the Hand Region of the Supplementary Motor Area and Cervical Motoneurons in the Macaque Monkey. European Journal of Neuroscience, 1996, 8, 1055-1059.	2.6	90
79	Morphology and spatial distribution of corticothalamic terminals originating from the cat auditory cortex. Hearing Research, 1995, 83, 161-174.	2.0	88
80	Direct visual pathways for reaching movements in the macaque monkey. NeuroReport, 1995, 7, 267-272.	1.2	174
81	Cerebellothalamocortical and pallidothalamocortical projections to the primary and supplementary motor cortical areas: A multiple tracing study in macaque monkeys. Journal of Comparative Neurology, 1994, 345, 185-213.	1.6	203
82	Neuronal morphology and efferent projections of the dorsal nucleus of the lateral lemniscus in the rat. Journal of Comparative Neurology, 1993, 334, 241-262.	1.6	84
83	Comparison of the Connectional Properties of the Two Forelimb Areas of the Rat Sensorimotor Cortex: Support for the Presence of a Premotor or Supplementary Motor Cortical Area. Somatosensory & Motor Research, 1993, 10, 269-289.	0.9	166
84	Modulation of Sustained Electromyographic Activity by Single Intracortical Microstimuli: Comparison of Two Forelimb Motor Cortical Areas of the Rat. Somatosensory & Motor Research, 1993, 10, 51-61.	0.9	42
85	Morphology of corticothalamic terminals arising from the auditory cortex of the rat: A Phaseolus vulgaris-leucoagglutinin (PHA-L) tracing study. Hearing Research, 1991, 56, 179-190.	2.0	114
86	Patterns of corticothalamic terminations following injection of Phaseolus vulgaris leucoagglutinin (PHA-L) in the sensorimotor cortex of the rat. Neuroscience Letters, 1991, 125, 93-97.	2.1	47
87	Corticomotoneuronal connections in the rat: Evidence from double-labeling of motoneurons and corticospinal axon arborizations. Journal of Comparative Neurology, 1991, 311, 356-366.	1.6	138
88	Arborization of corticothalamic axons in the auditory thalamus of the cat: A PHA-L tracing study. Neuroscience Letters, 1990, 108, 29-35.	2.1	27