Kenneth C Catania

List of Publications by Year
in descending order

86 papers	3,554 citations	117625 34 h-index	149698 56 g-index
86 all docs	86 docs citations	86 times ranked	2789 citing authors

#	Article	IF	Citations
1	Deactivation and reactivation of somatosensory cortex after dorsal spinal cord injury. Nature, 1997, 386, 495-498.	27.8	194
2	Mammalian Brains Are Made of These: A Dataset of the Numbers and Densities of Neuronal and Nonneuronal Cells in the Brain of Glires, Primates, Scandentia, Eulipotyphlans, Afrotherians and Artiodactyls, and Their Relationship with Body Mass. Brain, Behavior and Evolution, 2015, 86, 145-163.	1.7	176
3	Anatomic correlates of the face and oral cavity representations in the somatosensory cortical area 3b of monkeys. Journal of Comparative Neurology, 2001, 429, 455-468.	1.6	126
4	Organization of somatosensory cortex in the laboratory rat (Rattus norvegicus): Evidence for two lateral areas joined at the representation of the teeth. Journal of Comparative Neurology, 2003, 467, 105-118.	1.6	126
5	Organization of the somatosensory cortex of the starâ€nosed mole. Journal of Comparative Neurology, 1995, 351, 549-567.	1.6	125
6	Somatosensory fovea in the star-nosed mole: Behavioral use of the star in relation to innervation patterns and cortical representation. Journal of Comparative Neurology, 1997, 387, 215-233.	1.6	112
7	Structure, innervation and response properties of integumentary sensory organs in crocodilians. Journal of Experimental Biology, 2012, 215, 4217-4230.	1.7	109
8	Somatosensory cortex dominated by the representation of teeth in the naked mole-rat brain. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 5692-5697.	7.1	108
9	Asymptotic prey profitability drives star-nosed moles to the foraging speed limit. Nature, 2005, 433, 519-522.	27.8	108
10	Updated Neuronal Scaling Rules for the Brains of Glires (Rodents/Lagomorphs). Brain, Behavior and Evolution, 2011, 78, 302-314.	1.7	107
11	Development of lateral line organs in the axolotl. Journal of Comparative Neurology, 1994, 340, 480-514.	1.6	101
12	Stereo and serial sniffing guide navigation to an odour source in a mammal. Nature Communications, 2013, 4, 1441.	12.8	97
13	Tentacled snakes turn C-starts to their advantage and predict future prey behavior. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11183-11187.	7.1	93
14	Cortical organization in shrews: Evidence from five species. Journal of Comparative Neurology, 1999, 410, 55-72.	1.6	87
15	Cellular scaling rules of insectivore brains. Frontiers in Neuroanatomy, 2009, 3, 8.	1.7	82
16	Touching on somatosensory specializations in mammals. Current Opinion in Neurobiology, 2006, 16, 467-473.	4.2	79
17	The shocking predatory strike of the electric eel. Science, 2014, 346, 1231-1234.	12.6	77
18	Water shrews detect movement, shape, and smell to find prey underwater. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 571-576.	7.1	70

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19	Underwater 'sniffing' by semi-aquatic mammals. Nature, 2006, 444, 1024-1025.	27.8	68
20	Central visual system of the naked mole-rat (Heterocephalus glaber). The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 205-212.	2.0	67
21	Leaping eels electrify threats, supporting Humboldtâ€™s account of a battle with horses. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6979-6984.	7.1	66
22	Evolution of sensory specializations in insectivores. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2005, 287A, 1038-1050.	2.0	64
23	Tactile Foveation in the Star-Nosed Mole. Brain, Behavior and Evolution, 2004, 63, 1-12.	1.7	60
24	Epidermal Sensory Organs of Moles, Shrew Moles, and Desmans: A Study of the Family Talpidae with Comments on the Function and Evolution of Eimerâ€™s Organ. Brain, Behavior and Evolution, 2000, 56, 146-174.	1.7	55
25	Cortical Organization in Insectivora: The Parallel Evolution of the Sensory Periphery and the Brain. Brain, Behavior and Evolution, 2000, 55, 311-321.	1.7	53
26	Structure and innervation of the sensory organs on the snout of the star-nosed mole. Journal of Comparative Neurology, 1995, 351, 536-548.	1.6	52
27	Worm Grunting, Fiddling, and Charmingâ€"Humans Unknowingly Mimic a Predator to Harvest Bait. PLoS ONE, 2008, 3, e3472.	2.5	49
28	Heterochrony and developmental modularity of cranial osteogenesis in lipotyphlan mammals. EvoDevo, 2011, 2, 21.	3.2	45
29	Organization of somatosensory cortical areas in the naked moleâ€rat (Heterocephalus glaber). Journal of Comparative Neurology, 2006, 495, 434-452.	1.6	44
30	The Star-Nosed Mole Reveals Clues to the Molecular Basis of Mammalian Touch. PLoS ONE, 2013, 8, e55001.	2.5	41
31	The sense of touch in the star-nosed mole: from mechanoreceptors to the brain. Philosophical Transactions of the Royal Society B: Biological Sciences, 2011, 366, 3016-3025.	4.0	40
32	Organization of sensory cortex in the East African hedgehog (Atelerix albiventris). Journal of Comparative Neurology, 2000, 421, 256-274.	1.6	37
33	Plasticity of the cortical dentition representation after tooth extraction in naked mole-rats. Journal of Comparative Neurology, 2005, 485, 64-74.	1.6	37
34	Electric eels use high-voltage to track fast-moving prey. Nature Communications, 2015, 6, 8638.	12.8	37
35	Born Knowing: Tentacled Snakes Innately Predict Future Prey Behavior. PLoS ONE, 2010, 5, e10953.	2.5	36
36	Nose stars and brain stripes. Nature, 1993, 364, 493-493.	27.8	32

#	Article	IF	Citations
37	A comparison of the Eimer's organs of three north american moles: The hairy-tailed mole (Parascalops) Tj ETQq1 1 0.784314 rgBT /Ov Journal of Comparative Neurology, 1995, 354, 150-160.	1.6	28
38	Identification of retinal neurons in a regressive rodent eye (the naked mole-rat). Visual Neuroscience, 2004, 21, 107-117.	1.0	27
39	Evolution of brains and behavior for optimal foraging: A tale of two predators. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10701-10708.	7.1	27
40	Electric Eels Concentrate Their Electric Field to Induce Involuntary Fatigue in Struggling Prey. Current Biology, 2015, 25, 2889-2898.	3.9	27
41	Early development of a somatosensory fovea: a head start in the cortical space race?. Nature Neuroscience, 2001, 4, 353-354.	14.8	26
42	Organization of somatosensory cortex and distribution of corticospinal neurons in the eastern mole (Scalopus aquaticus). Journal of Comparative Neurology, 1997, 378, 337-353.	1.6	25
43	Ultrastructure of the Eimer's organ of the star-nosed mole. , 1996, 365, 343-354.		23
44	Cortical, callosal, and thalamic connections from primary somatosensory cortex in the naked mole-rat (Heterocephalus glaber), with special emphasis on the connectivity of the incisor representation. The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 626-645.	2.0	23
45	Receptive Fields and Response Properties of Neurons in the Star-Nosed Mole's Somatosensory Fovea. Journal of Neurophysiology, 2002, 87, 2602-2611.	1.8	22
46	Greater addition of neurons to the olfactory bulb than to the cerebral cortex of eulipotyphlans but not rodents, afrotherians or primates. Frontiers in Neuroanatomy, 2014, 8, 23.	1.7	22
47	Magnified cortex in star-nosed moles. Nature, 1995, 375, 453-454.	27.8	21
48	Cortical organization in moles: evidence of new areas and a specialized S2. Somatosensory & Motor Research, 2000, 17, 335-347.	0.9	21
49	Somatosensation in the superior colliculus of the star-nosed mole. Journal of Comparative Neurology, 2003, 464, 415-425.	1.6	21
50	Response properties of primary afferents supplying Eimer's organ. Journal of Experimental Biology, 2007, 210, 765-780.	1.7	21
51	Barrels, stripes, and fingerprints in the brain - implications for theories of cortical organization. Journal of Neurocytology, 2002, 31, 347-358.	1.5	20
52	Compartmentation of the Cerebellar Cortex in the Naked Mole-Rat (Heterocephalus glaber). Cerebellum, 2011, 10, 435-448.	2.5	19
53	A Star in the Brainstem Reveals the First Step of Cortical Magnification. PLoS ONE, 2011, 6, e22406.	2.5	19
54	Organization of the somatosensory cortex in elephant shrews (E. edwardii). The Anatomical Record Part A: Discoveries in Molecular, Cellular, and Evolutionary Biology, 2006, 288A, 859-866.	2.0	18

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55	Organization of somatosensory cortex in the Northern grasshopper mouse (Onychomys) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.6	18
56	The mole nose instructs the brain. Somatosensory & Motor Research, 1997, 14, 56-58.	0.9	17
57	Compartmentation of the Cerebellar Cortex: Adaptation to Lifestyle in the Star-Nosed Mole Condylura cristata. Cerebellum, 2015, 14, 106-118.	2.5	17
58	The Astonishing Behavior of Electric Eels. Frontiers in Integrative Neuroscience, 2019, 13, 23.	2.1	17
59	Neuroanatomical evidence for segregation of nerve fibers conveying light touch and pain sensation in Eimer's organ of the mole. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 9339-9344.	7.1	16
60	Tactile sensing in specialized predators â€“ from behavior to the brain. Current Opinion in Neurobiology, 2012, 22, 251-258.	4.2	16
61	An Optimized Biological Taser: Electric Eels Remotely Induce or Arrest Movement in Nearby Prey. Brain, Behavior and Evolution, 2015, 86, 38-47.	1.7	16
62	Organization of the spinal trigeminal nucleus in starâ€nosed moles. Journal of Comparative Neurology, 2014, 522, 3335-3350.	1.6	15
63	Central Projections of Trigeminal Afferents Innervating the Face in Naked Moleâ€Rats (Heterocephalus glaber). Anatomical Record, 2008, 291, 988-998.	1.4	11
64	Brain Mass and Cranial Nerve Size in Shrews and Moles. Scientific Reports, 2014, 4, 6241.	3.3	11
65	Somatosensory organ topography across the star of the starâ€nosed mole (Condylura cristata). Journal of Comparative Neurology, 2016, 524, 917-929.	1.6	11
66	Power Transfer to a Human during an Electric Eelâ€™s Shocking Leap. Current Biology, 2017, 27, 2887-2891.e2.	3.9	11
67	Barrelettes without Barrels in the American Water Shrew. PLoS ONE, 2013, 8, e65975.	2.5	10
68	How Not to Be Turned into a Zombie. Brain, Behavior and Evolution, 2018, 92, 32-46.	1.7	10
69	Electrical Potential of Leaping Eels. Brain, Behavior and Evolution, 2017, 89, 262-273.	1.7	10
70	Star-nosed moles. Current Biology, 2005, 15, R863-R864.	3.9	9
71	Adaptive Neural Organization of Naked Mole-Rat Somatosensation (and Those Similarly Challenged). , 2007, , 175-193.		9
72	All in the Family â€“ Touch Versus Olfaction in Moles. Anatomical Record, 2020, 303, 65-76.	1.4	8

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73	Identification of retinal neurons in a regressive rodent eye (the naked mole-rat). Visual Neuroscience, 2004, 21, 107-17.	1.0	8
74	Fine structure of Eimer's organ in the coast mole (Scapanus orarius). Anatomical Record, 2007, 290, 437-448.	1.4	7
75	The brain and behavior of the tentacled snake. Annals of the New York Academy of Sciences, 2011, 1225, 83-89.	3.8	7
76	Chemoarchitecture of Layer 4 Isocortex in the American Water Shrew (Sorex palustris). Brain, Behavior and Evolution, 2011, 78, 261-271.	1.7	6
77	The neurobiology and behavior of the American water shrew (Sorex palustris). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 545-554.	1.6	5
78	Symposium Overview. Annals of the New York Academy of Sciences, 2009, 1170, 407-412.	3.8	4
79	Getting the Most Out of Your Zombie: Abdominal Sensors and Neural Manipulations Help Jewel Wasps Find the Roachâ€™s Weak Spot. Brain, Behavior and Evolution, 2020, 95, 181-202.	1.7	4
80	Cutaneous and periodontal inputs to the cerebellum of the naked mole-rat (Heterocephalus glaber). Frontiers in Neuroanatomy, 2013, 7, 39.	1.7	3
81	Behavioral pieces of neuroethological puzzles. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2017, 203, 677-689.	1.6	3
82	Comparative Studies of Somatosensory Systems and Active Sensing. , 2015, , 7-28.		3
83	Electric Eels Wield a Functional Venom Analogue. Toxins, 2021, 13, 48.	3.4	1
84	Anatomic correlates of the face and oral cavity representations in the somatosensory cortical area 3b of monkeys. , 2001, 429, 455.		1
85	Les superpouvoirs de lâ€™anguille Ã©lectrique. Pourlascience Fr, 2020, NÂ° 508 - fÃ©vrier, 36-43.	0.0	0
86	La stupÃ©fiante attaque de la guÃªpe Ã©meraude. Pourlascience Fr, 2021, NÂ° 521 - mars, 44-51.	0.0	0