Eve Marder

List of Publications by Year
in descending order

261 papers	20,430 citations	13087 68 h-index	14197 128 g-index
326 all docs	326 docs citations	326 times ranked	9594 citing authors

#	Article	IF	Citations
1	Variability, compensation and homeostasis in neuron and network function. Nature Reviews Neuroscience, 2006, 7, 563-574.	4.9	1,048
2	Central pattern generators and the control of rhythmic movements. Current Biology, 2001, 11, R986-R996.	1.8	917
3	Similar network activity from disparate circuit parameters. Nature Neuroscience, 2004, 7, 1345-1352.	7.1	914
4	Neuromodulation of Neuronal Circuits: Back to the Future. Neuron, 2012, 76, 1-11.	3.8	789
5	Understanding Circuit Dynamics Using the Stomatogastric Nervous System of Lobsters and Crabs. Annual Review of Physiology, 2007, 69, 291-316.	5.6	591
6	Modulation of Neural Networks for Behavior. Annual Review of Neuroscience, 1991, 14, 39-57.	5.0	590
7	From the connectome to brain function. Nature Methods, 2013, 10, 483-490.	9.0	451
8	Variable channel expression in identified single and electrically coupled neurons in different animals. Nature Neuroscience, 2006, 9, 356-362.	7.1	410
9	Multiple models to capture the variability in biological neurons and networks. Nature Neuroscience, 2011, 14, 133-138.	7.1	407
10	Alternative to Hand-Tuning Conductance-Based Models: Construction and Analysis of Databases of Model Neurons. Journal of Neurophysiology, 2003, 90, 3998-4015.	0.9	347
11	Global Structure, Robustness, and Modulation of Neuronal Models. Journal of Neuroscience, 2001, 21, 5229-5238.	1.7	341
12	Variability, compensation, and modulation in neurons and circuits. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 15542-15548.	3.3	327
13	The dynamic clamp: artificial conductances in biological neurons. Trends in Neurosciences, 1993, 16, 389-394.	4.2	278
14	Failure of Averaging in the Construction of a Conductance-Based Neuron Model. Journal of Neurophysiology, 2002, 87, 1129-1131.	0.9	275
15	Invertebrate Central Pattern Generation Moves along. Current Biology, 2005, 15, R685-R699.	1.8	263
16	Neuromodulation of Circuits with Variable Parameters: Single Neurons and Small Circuits Reveal Principles of State-Dependent and Robust Neuromodulation. Annual Review of Neuroscience, 2014, 37, 329-346.	5.0	263
17	Cell Types, Network Homeostasis, and Pathological Compensation from a Biologically Plausible Ion Channel Expression Model. Neuron, 2014, 82, 809-821.	3.8	261
18	The dynamic clamp comes of age. Trends in Neurosciences, 2004, 27, 218-224.	4.2	260

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19	Cellular, synaptic and network effects of neuromodulation. Neural Networks, 2002, 15, 479-493.	3.3	258
20	Functional consequences of animal-to-animal variation in circuit parameters. Nature Neuroscience, 2009, 12, 1424-1430.	7.1	252
21	Mechanisms for oscillation and frequency control in reciprocally inhibitory model neural networks. Journal of Computational Neuroscience, 1994, 1, 69-87.	0.6	243
22	Plasticity in single neuron and circuit computations. Nature, 2004, 431, 789-795.	13.7	239
23	Functional consequences of neuropeptide and small-molecule co-transmission. Nature Reviews Neuroscience, 2017, 18, 389-403.	4.9	231
24	A Model Neuron with Activity-Dependent Conductances Regulated by Multiple Calcium Sensors. Journal of Neuroscience, 1998, 18, 2309-2320.	1.7	217
25	Modeling stability in neuron and network function: the role of activity in homeostasis. BioEssays, 2002, 24, 1145-1154.	1.2	199
26	How Multiple Conductances Determine Electrophysiological Properties in a Multicompartment Model. Journal of Neuroscience, 2009, 29, 5573-5586.	1.7	182
27	The BRAIN Initiative: developing technology to catalyse neuroscience discovery. Philosophical Transactions of the Royal Society B: Biological Sciences, 2015, 370, 20140164.	1.8	179
28	Correlations in ion channel expression emerge from homeostatic tuning rules. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2645-54.	3.3	173
29	Animal-to-Animal Variability in Motor Pattern Production in Adults and during Growth. Journal of Neuroscience, 2005, 25, 1611-1619.	1.7	171
30	Activity-Dependent Regulation of Potassium Currents in an Identified Neuron of the Stomatogastric Ganglion of the CrabCancer borealis. Journal of Neuroscience, 1999, 19, RC33-RC33.	1.7	170
31	Multiple Mechanisms Switch an Electrically Coupled, Synaptically Inhibited Neuron between Competing Rhythmic Oscillators. Neuron, 2013, 77, 845-858.	3.8	168
32	Network Stability from Activity-Dependent Regulation of Neuronal Conductances. Neural Computation, 1999, 11, 1079-1096.	1.3	165
33	Multiple Peptides Converge to Activate the Same Voltage-Dependent Current in a Central Pattern-Generating Circuit. Journal of Neuroscience, 2000, 20, 6752-6759.	1.7	164
34	Distribution and partial characterization of FMRFamide-like peptides in the stomatogastric nervous systems of the rock crab,Cancer borealis, and the spiny lobster,Panulirus interruptus. Journal of Comparative Neurology, 1987, 259, 150-163.	0.9	163
35	Neuropeptide fusion of two motor-pattern generator circuits. Nature, 1990, 344, 155-158.	13.7	161
36	The Neuron Doctrine, Redux. Science, 2005, 310, 791-793.	6.0	160

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37	Switching neurons are integral members of multiple oscillatory networks. Current Biology, 1994, 4, 896-902.	1.8	159
38	Robust circuit rhythms in small circuits arise from variable circuit components and mechanisms. Current Opinion in Neurobiology, 2015, 31, 156-163.	2.0	153
39	Coordination of Fast and Slow Rhythmic Neuronal Circuits. Journal of Neuroscience, 1999, 19, 6650-6660.	1.7	147
40	Different Proctolin Neurons Elicit Distinct Motor Patterns from a Multifunctional Neuronal Network. Journal of Neuroscience, 1999, 19, 5449-5463.	1.7	143
41	Modulatory action and distribution of the neuropeptide proctolin in the crustacean stomatogastric nervous system. Journal of Comparative Neurology, 1986, 243, 454-467.	0.9	140
42	Mass spectrometric investigation of the neuropeptide complement and release in the pericardial organs of the crab, Cancer borealis. Journal of Neurochemistry, 2003, 87, 642-656.	2.1	130
43	Reduction of conductance-based neuron models. Biological Cybernetics, 1992, 66, 381-387.	0.6	128
44	Modulation of a central pattern generator by two neuropeptides, proctolin and FMRFamide. Brain Research, 1984, 305, 186-191.	1.1	125
45	Precise Temperature Compensation of Phase in a Rhythmic Motor Pattern. PLoS Biology, 2010, 8, e1000469.	2.6	125
46	Computational implications of biophysical diversity and multiple timescales in neurons and synapses for circuit performance. Current Opinion in Neurobiology, 2016, 37, 44-52.	2.0	124
47	Modulators with Convergent Cellular Actions Elicit Distinct Circuit Outputs. Journal of Neuroscience, 2001, 21, 4050-4058.	1.7	120
48	Ion channel degeneracy enables robust and tunable neuronal firing rates. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E5361-70.	3.3	118
49	FROM BIOPHYSICS TO MODELS OF NETWORK FUNCTION. Annual Review of Neuroscience, 1998, 21, 25-45.	5.0	117
50	The Functional Consequences of Changes in the Strength and Duration of Synaptic Inputs to Oscillatory Neurons. Journal of Neuroscience, 2003, 23, 943-954.	1.7	117
51	Robustness of a Rhythmic Circuit to Short- and Long-Term Temperature Changes. Journal of Neuroscience, 2012, 32, 10075-10085.	1.7	113
52	Motor pattern generation. Current Opinion in Neurobiology, 2000, 10, 691-698.	2.0	105
53	Compensation for Variable Intrinsic Neuronal Excitability by Circuit-Synaptic Interactions. Journal of Neuroscience, 2010, 30, 9145-9156.	1.7	104
54	A Neuronal Role for A Crustacean Red Pigment Concentrating Hormone-Like Peptide: Neuromodulation of the Pyloric Rhythm in the Crab, <i>Cancer Borealis</i>. Journal of Experimental Biology, 1988, 135, 165-181.	0.8	101

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55	Structure and Visualization of High-Dimensional Conductance Spaces. Journal of Neurophysiology, 2006, 96, 891-905.	0.9	100
56	Ion Channel Degeneracy, Variability, and Covariation in Neuron and Circuit Resilience. Annual Review of Neuroscience, 2021, 44, 335-357.	5.0	98
57	Correlations in Ion Channel mRNA in Rhythmically Active Neurons. PLoS ONE, 2009, 4, e6742.	1.1	96
58	Modulation of Oscillator Interactions in the Crab Stomatogastric Ganglion by Crustacean Cardioactive Peptide. Journal of Neuroscience, 1997, 17, 1748-1760.	1.7	95
59	Orcokinin peptides in developing and adult crustacean stomatogastric nervous systems and pericardial organs. Journal of Comparative Neurology, 2002, 444, 227-244.	0.9	95
60	Computational Model of Electrically Coupled, Intrinsically Distinct Pacemaker Neurons. Journal of Neurophysiology, 2005, 94, 590-604.	0.9	91
61	Temporal Dynamics of Graded Synaptic Transmission in the Lobster Stomatogastric Ganglion. Journal of Neuroscience, 1997, 17, 5610-5621.	1.7	89
62	Visualization of currents in neural models with similar behavior and different conductance densities. ELife, 2019, 8, .	2.8	87
63	Development of central pattern generating circuits. Current Opinion in Neurobiology, 2005, 15, 86-93.	2.0	86
64	Temporal Dynamics of Convergent Modulation at a Crustacean Neuromuscular Junction. Journal of Neurophysiology, 1998, 80, 2559-2570.	0.9	84
65	Frequency Regulation of a Slow Rhythm by a Fast Periodic Input. Journal of Neuroscience, 1998, 18, 5053-5067.	1.7	83
66	Reliable neuromodulation from circuits with variable underlying structure. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11742-11746.	3.3	81
67	Temperature-Robust Neural Function from Activity-Dependent Ion Channel Regulation. Current Biology, 2016, 26, 2935-2941.	1.8	81
68	Activity-dependent modification of inhibitory synapses in models of rhythmic neural networks. Nature Neuroscience, 2001, 4, 297-303.	7.1	79
69	Distribution and effects of tachykinin-like peptides in the stomatogastric nervous system of the crab,Cancer borealis. Journal of Comparative Neurology, 1995, 354, 282-294.	0.9	76
70	Functional organization of cotransmission systems: Lessons from small nervous systems. Invertebrate Neuroscience, 1995, 1, 105-112.	1.8	75
71	The Effects of Temperature on the Stability of a Neuronal Oscillator. PLoS Computational Biology, 2013, 9, e1002857.	1.5	75
72	Substance P-like immunoreactivity in the stomatogastric nervous systems of the crab Cancer borealis and the lobsters Panulirus interruptus and Homarus americanus. Cell and Tissue Research, 1988, 252, 515-522.	1.5	73

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73	Ultrastructure of the stomatogastric ganglion neuropil of the crab,Cancer borealis. , 1996, 374, 362-375.		73
74	Computational models in the age of large datasets. Current Opinion in Neurobiology, 2015, 32, 87-94.	2.0	71
75	Frequency and burst duration in oscillating neurons and two-cell networks. Biological Cybernetics, 1993, 69, 375-383.	0.6	70
76	Circuit Robustness to Temperature Perturbation Is Altered by Neuromodulators. Neuron, 2018, 100, 609-623.e3.	3.8	69
77	Complicating connectomes: Electrical coupling creates parallel pathways and degenerate circuit mechanisms. Developmental Neurobiology, 2017, 77, 597-609.	1.5	68
78	Red Pigment Concentrating Hormone Strongly Enhances the Strength of the Feedback to the Pyloric Rhythm Oscillator But Has Little Effect on Pyloric Rhythm Period. Journal of Neurophysiology, 2006, 95, 1762-1770.	0.9	67
79	Multiple modulators act on the cardiac ganglion of the crab,<i>Cancer borealis</i>. Journal of Experimental Biology, 2007, 210, 2873-2884.	0.8	67
80	Colocalized Neuropeptides Activate a Central Pattern Generator by Acting on Different Circuit Targets. Journal of Neuroscience, 2002, 22, 1874-1882.	1.7	66
81	Modulatory control of multiple task processing in the stomatogastric nervous system. , 1992, , 3-19.		65
82	Mass spectrometric characterization and physiological actions of novel crustacean C-type allatostatins. Peptides, 2009, 30, 1660-1668.	1.2	65
83	Successful Reconstruction of a Physiological Circuit with Known Connectivity from Spiking Activity Alone. PLoS Computational Biology, 2013, 9, e1003138.	1.5	65
84	Current Compensation in Neuronal Homeostasis. Neuron, 2003, 37, 2-4.	3.8	63
85	Deep sequencing of transcriptomes from the nervous systems of two decapod crustaceans to characterize genes important for neural circuit function and modulation. BMC Genomics, 2016, 17, 868.	1.2	62
86	Decoding Synapses. Journal of Neuroscience, 1996, 16, 6307-6318.	1.7	61
87	Sequential developmental acquisition of cotransmitters in identified sensory neurons of the stomatogastric nervous system of the lobsters,Homarus americanus andHomarus gammarus. , 1999, 408, 318-334.		60
88	Sequential developmental acquisition of neuromodulatory inputs to a central pattern-generating network. , 1999, 408, 335-351.		60
89	Actions of a histaminergic/peptidergic projection neuron on rhythmic motor patterns in the stomatogastric nervous system of the crabCancer borealis. Journal of Comparative Neurology, 2004, 469, 153-169.	0.9	60
90	Central Pattern Generating Neurons Simultaneously Express Fast and Slow Rhythmic Activities in the Stomatogastric Ganglion. Journal of Neurophysiology, 2006, 95, 3617-3632.	0.9	60

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91	Mass spectrometric characterization and physiological actions of VPNDWAHFRGSWamide, a novel B type allatostatin in the crab, Cancer borealis. Journal of Neurochemistry, 2007, 101, 1099-1107.	2.1	60
92	Phase maintenance in a rhythmic motor pattern during temperature changes in vivo. Journal of Neurophysiology, 2014, 111, 2603-2613.	0.9	60
93	Episodic Bouts of Activity Accompany Recovery of Rhythmic Output By a Neuromodulator- and Activity-Deprived Adult Neural Network. Journal of Neurophysiology, 2003, 90, 2720-2730.	0.9	56
94	The innervation of the pyloric region of the crab,Cancer borealis: Homologous muscles in decapod species are differently innervated. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1986, 159, 227-240.	0.7	55
95	Dynamic Clamp Analyses of Cardiac, Endocrine, and Neural Function. Physiology, 2006, 21, 197-207.	1.6	55
96	Neuromodulation of Spike-Timing Precision in Sensory Neurons. Journal of Neuroscience, 2006, 26, 5910-5919.	1.7	55
97	Acetylcholine as an excitatory neuromuscular transmitter in the stomatogastric system of the lobster. Nature, 1974, 251, 730-731.	13.7	54
98	Axonal Dopamine Receptors Activate Peripheral Spike Initiation in a Stomatogastric Motor Neuron. Journal of Neuroscience, 2003, 23, 6866-6875.	1.7	54
99	Animal-to-Animal Variability in Neuromodulation and Circuit Function. Cold Spring Harbor Symposia on Quantitative Biology, 2014, 79, 21-28.	2.0	54
100	Neurotransmitter Modulation of the Stomatogastric Ganglion of Decapod Crustaceans. , 1985, , 319-337.		52
101	Neuromodulatory complement of the pericardial organs in the embryonic lobster,homarus americanus. Journal of Comparative Neurology, 2002, 451, 79-90.	0.9	51
102	A glutamate-activated chloride conductance on a crustacean muscle. Brain Research, 1981, 212, 481-488.	1.1	47
103	Electrical synapses: Beyond speed and synchrony to computation. Current Biology, 1998, 8, R795-R797.	1.8	47
104	Many Parameter Sets in a Multicompartment Model Oscillator Are Robust to Temperature Perturbations. Journal of Neuroscience, 2014, 34, 4963-4975.	1.7	46
105	Differential distribution of ?-pigment-dispersing hormone (?-PDH)-like immunoreactivity in the stomatogastric nervous system of five species of decapod crustaceans. Cell and Tissue Research, 1991, 265, 19-33.	1.5	45
106	Slow and Persistent Postinhibitory Rebound Acts as an Intrinsic Short-Term Memory Mechanism. Journal of Neuroscience, 2010, 30, 4687-4692.	1.7	45
107	Mechanisms underlying neurotransmitter modulation of a neuronal circuit. Trends in Neurosciences, 1984, 7, 48-53.	4.2	44
108	Nitric Oxide Inhibits the Rate and Strength of Cardiac Contractions in the Lobster Homarus americanus by Acting on the Cardiac Ganglion. Journal of Neuroscience, 2004, 24, 2813-2824.	1.7	43

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109	When complex neuronal structures may not matter. ELife, 2017, 6, .	2.8	43
110	Organization of the stomatogastric neuropil of the crab, Cancer borealis, as revealed by modulator immunocytochemistry. Cell and Tissue Research, 1997, 288, 135-148.	1.5	42
111	Rectifying Electrical Synapses Can Affect the Influence of Synaptic Modulation on Output Pattern Robustness. Journal of Neuroscience, 2013, 33, 13238-13248.	1.7	42
112	Electrical coupling and innexin expression in the stomatogastric ganglion of the crab<i>Cancer borealis</i>. Journal of Neurophysiology, 2014, 112, 2946-2958.	0.9	42
113	Dopamine and histamine in the developing stomatogastric system of the lobsterHomarus americanus. Journal of Comparative Neurology, 2003, 462, 400-414.	0.9	40
114	Mass spectral comparison of the neuropeptide complement of the stomatogastric ganglion and brain in the adult and embryonic lobster, Homarus americanus. Journal of Neurochemistry, 2008, 105, 690-702.	2.1	40
115	Increase in Sodium Conductance Decreases Firing Rate and Gain in Model Neurons. Journal of Neuroscience, 2012, 32, 10995-11004.	1.7	40
116	SnapShot: Neuromodulation. Cell, 2013, 155, 482-482.e1.	13.5	40
117	Octopamine Modulates the Axons of Modulatory Projection Neurons. Journal of Neuroscience, 2004, 24, 7063-7073.	1.7	39
118	Distribution and physiological effects of Bâ€type allatostatins (myoinhibitory peptides, MIPs) in the stomatogastric nervous system of the crab <i>Cancer borealis</i>. Journal of Comparative Neurology, 2011, 519, 2658-2676.	0.9	39
119	Theory in motion. Current Opinion in Neurobiology, 1995, 5, 832-840.	2.0	38
120	Non-mammalian models for studying neural development and function. Nature, 2002, 417, 318-321.	13.7	38
121	Mass spectrometric characterization and physiological actions of GAHKNYLRFamide, a novel FMRFamide-like peptide from crabs of the genus Cancer. Journal of Neurochemistry, 2006, 97, 784-799.	2.1	38
122	Cellular function given parametric variation in the Hodgkin and Huxley model of excitability. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8211-E8218.	3.3	38
123	Temperature compensation in a small rhythmic circuit. ELife, 2020, 9, .	2.8	38
124	Sloppy morphological tuning in identified neurons of the crustacean stomatogastric ganglion. ELife, 2017, 6, .	2.8	37
125	Invertebrate Neurobiology: Polymorphic neural networks. Current Biology, 1994, 4, 752-754.	1.8	36
126	Serotonin in the developing stomatogastric system of the lobster,Homarus americanus. Journal of Neurobiology, 2003, 54, 380-392.	3.7	36

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127	Neuronal morphology and neuropil structure in the stomatogastric ganglion of the lobster,Homarus americanus. Journal of Comparative Neurology, 2007, 501, 185-205.	0.9	36
128	Subharmonic Coordination in Networks of Neurons with Slow Conductances. Neural Computation, 1994, 6, 69-84.	1.3	35
129	Encoding of Muscle Movement on Two Time Scales by a Sensory Neuron That Switches Between Spiking and Bursting Modes. Journal of Neurophysiology, 1999, 82, 2786-2797.	0.9	35
130	The actions of crustacean cardioactive peptide on adult and developing stomatogastric ganglion motor patterns. Journal of Neurobiology, 2000, 44, 31-44.	3.7	35
131	Network Oscillations Generated by Balancing Graded Asymmetric Reciprocal Inhibition in Passive Neurons. Journal of Neuroscience, 1999, 19, 2765-2779.	1.7	34
132	Modulation of a Single Neuron Has State-Dependent Actions on Circuit Dynamics. ENeuro, 2014, 1, ENEURO.0009-14.2014.	0.9	33
133	How can motor systems retain performance over a wide temperature range? Lessons from the crustacean stomatogastric nervous system. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2015, 201, 851-856.	0.7	33
134	Two central pattern generators from the crab, Cancer borealis, respond robustly and differentially to extreme extracellular pH. ELife, 2018, 7, .	2.8	33
135	Picrotoxin block of a depolarizing ACh response. Brain Research, 1980, 181, 223-227.	1.1	32
136	Functional connectivity in a rhythmic inhibitory circuit using Granger causality. Neural Systems & Circuits, 2011, 1, 9.	1.8	32
137	Maturation of Lobster Stomatogastric Ganglion Rhythmic Activity. Journal of Neurophysiology, 1999, 82, 2006-2009.	0.9	30
138	Differential and History-Dependent Modulation of a Stretch Receptor in the Stomatogastric System of the Crab, Cancer borealis. Journal of Neurophysiology, 2003, 90, 3608-3616.	0.9	30
139	Developmental Regulation of Neuromodulator Function in the Stomatogastric Ganglion of the Lobster,<i>Homarus americanus</i>. Journal of Neuroscience, 2008, 28, 9828-9839.	1.7	30
140	The Neuromuscular Transform of the Lobster Cardiac System Explains the Opposing Effects of a Neuromodulator on Muscle Output. Journal of Neuroscience, 2013, 33, 16565-16575.	1.7	30
141	Quantitative Reevaluation of the Effects of Short- and Long-Term Removal of Descending Modulatory Inputs on the Pyloric Rhythm of the Crab,<i>Cancer borealis</i>. ENeuro, 2015, 2, ENEURO.0058-14.2015.	0.9	30
142	Understanding Brains: Details, Intuition, and Big Data. PLoS Biology, 2015, 13, e1002147.	2.6	30
143	The Pharmacological Profile of the Acetylcholine Response of A Crustacean Muscle. Journal of Experimental Biology, 1980, 88, 147-160.	0.8	30
144	A GABAâ€activated chlorideâ€conductance not blocked by picrotoxin on spiny lobster neuromuscular preparations. British Journal of Pharmacology, 1986, 87, 771-779.	2.7	29

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145	Peptidergic Modulation of Synaptic Transmission in a Rhythmic Motor System. Advances in Organ Biology, 1997, , 213-233.	0.1	28
146	How tightly tuned are network parameters? Insight from computational and experimental studies in small rhythmic motor networks. Progress in Brain Research, 2007, 165, 193-200.	0.9	28
147	Mapping Neural Activation onto Behavior in an Entire Animal. Science, 2014, 344, 372-373.	6.0	27
148	Molecular profiling of single neurons of known identity in two ganglia from the crab <i>Cancer borealis</i>. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 26980-26990.	3.3	26
149	Moving rhythms. Nature, 2001, 410, 755-755.	13.7	25
150	A new act to swallow. Nature, 1991, 351, 18-18.	13.7	24
151	Profiling of neuropeptides released at the stomatogastric ganglion of the crab, Cancer borealis with mass spectrometry. Journal of Neurochemistry, 2005, 95, 191-199.	2.1	24
152	<i>In vivo</i> effects of temperature on the heart and pyloric rhythms in the crab, <i>Cancer borealis</i>. Journal of Experimental Biology, 2019, 222, .	0.8	24
153	Extending influence. Nature, 2006, 441, 702-703.	13.7	23
154	Plateaus in time. Current Biology, 1991, 1, 326-327.	1.8	22
155	Electrical Synapses: Rectification Demystified. Current Biology, 2009, 19, R34-R35.	1.8	21
156	Automatic parameter estimation of multicompartmental neuron models via minimization of trace error with control adjustment. Journal of Neurophysiology, 2014, 112, 2332-2348.	0.9	21
157	Coupling between fast and slow oscillator circuits in Cancer borealis is temperature-compensated. ELife, 2021, 10, .	2.8	21
158	Neuronal oscillator robustness to multiple global perturbations. Biophysical Journal, 2021, 120, 1454-1468.	0.2	21
159	GABA Enhances Transmission at an Excitatory Glutamatergic Synapse. Journal of Neuroscience, 2001, 21, 5935-5943.	1.7	20
160	Foundations for the Future. Journal of Neurophysiology, 2002, 88, 1-1.	0.9	20
161	Consequences of acute and long-term removal of neuromodulatory input on the episodic gastric rhythm of the crab<i>Cancer borealis</i>. Journal of Neurophysiology, 2015, 114, 1677-1692.	0.9	20
162	Neuronal morphologies built for reliable physiology in a rhythmic motor circuit. ELife, 2019, 8, .	2.8	20

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163	Modulating a neuronal network. Nature, 1988, 335, 296-297.	13.7	19
164	Development of the peptidergic modulation of a rhythmic pattern generating network. Brain Research, 1999, 848, 35-44.	1.1	19
165	The haves and the have nots. ELife, 2013, 2, e01515.	2.8	19
166	From the Neuroscience of Individual Variability to Climate Change. Journal of Neuroscience, 2021, 41, 10213-10221.	1.7	18
167	Frequency Control of a Slow Oscillatory Network by a Fast Rhythmic Input: Pyloric to Gastric Mill Interactions in the Crab Stomatogastric Nervous Systema. Annals of the New York Academy of Sciences, 1998, 860, 226-238.	1.8	17
168	Impacting our young. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21233-21233.	3.3	17
169	Coordinating Different Homeostatic Processes. Neuron, 2010, 66, 161-163.	3.8	17
170	Regulation of Eag by Ca²⁺/calmodulin controls presynaptic excitability in<i>Drosophila</i>. Journal of Neurophysiology, 2018, 119, 1665-1680.	0.9	17
171	Spike initiation and propagation on axons with slow inward currents. Biological Cybernetics, 1993, 68, 209-214.	0.6	16
172	Neural signalling: Does colocalization imply cotransmission?. Current Biology, 1999, 9, R809-R811.	1.8	16
173	Constant amplitude of postsynaptic responses for single presynaptic action potentials but not bursting input during growth of an identified neuromuscular junction in the lobster,Homarus americanus. Journal of Neurobiology, 2005, 62, 47-61.	3.7	16
174	Plasticity in the Neurotransmitter Repertoire. Science, 2013, 340, 436-437.	6.0	16
175	Animal-to-animal variability in the phasing of the crustacean cardiac motor pattern: an experimental and computational analysis. Journal of Neurophysiology, 2013, 109, 2451-2465.	0.9	16
176	Interactions among diameter, myelination, and the Na/K pump affect axonal resilience to high-frequency spiking. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	16
177	Physiological Insights from Cellular and Network Models of the Stomatogastric Nervous System of Lobsters and Crabs. American Zoologist, 1993, 33, 29-39.	0.7	15
178	Neural modulation: Following your own rhythm. Current Biology, 1996, 6, 119-121.	1.8	15
179	Rapid adaptation to elevated extracellular potassium in the pyloric circuit of the crab, <i>Cancer borealis</i>. Journal of Neurophysiology, 2020, 123, 2075-2089.	0.9	15
180	Perturbation-specific responses by two neural circuits generating similar activity patterns. Current Biology, 2021, 31, 4831-4838.e4.	1.8	15

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181	Neuropilar Projections of the Anterior Gastric Receptor Neuron in the Stomatogastric Ganglion of the Jonah Crab, Cancer Borealis. PLoS ONE, 2013, 8, e79306.	1.1	15
182	Activity-dependent compensation of cell size is vulnerable to targeted deletion of ion channels. Scientific Reports, 2020, 10, 15989.	1.6	14
183	Graded Transmission without Action Potentials Sustains Rhythmic Activity in Some But Not All Modulators That Activate the Same Current. Journal of Neuroscience, 2018, 38, 8976-8988.	1.7	13
184	Spectral Analyses Reveal the Presence of Adult-Like Activity in the Embryonic Stomatogastric Motor Patterns of the Lobster,<i>Homarus americanus</i>. Journal of Neurophysiology, 2008, 99, 3104-3122.	0.9	12
185	Dynamic clamp constructed phase diagram for the Hodgkin and Huxley model of excitability. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3575-3582.	3.3	11
186	Computational Dynamics in Rhythmic Neural Circuits. Neuroscientist, 1997, 3, 295-302.	2.6	10
187	Xolotl: An Intuitive and Approachable Neuron and Network Simulator for Research and Teaching. Frontiers in Neuroinformatics, 2018, 12, 87.	1.3	10
188	Mapping circuit dynamics during function and dysfunction. ELife, 2022, 11, .	2.8	10
189	Senseless motion. Nature, 2002, 416, 131-132.	13.7	9
190	Statistics of Neuronal Identification with Open- and Closed-Loop Measures of Intrinsic Excitability. Frontiers in Neural Circuits, 2012, 6, 19.	1.4	9
191	Vertebrate versus invertebrate neural circuits. Current Biology, 2013, 23, R504-R506.	1.8	9
192	Innexin expression in electrically coupled motor circuits. Neuroscience Letters, 2019, 695, 19-24.	1.0	8
193	Acknowledging female voices. Nature Neuroscience, 2020, 23, 904-905.	7.1	8
194	The pleasure of publishing. ELife, 2015, 4, .	2.8	8
195	Computing with cyclic AMP. Nature, 1996, 384, 113-114.	13.7	7
196	Models identify hidden assumptions. Nature Neuroscience, 2000, 3, 1198-1198.	7.1	7
197	Beyond scoops to best practices. ELife, 2017, 6, .	2.8	7
198	Words without meaning. ELife, 2020, 9, .	2.8	7

#	Article	IF	Citations
199	Reciprocally inhibitory circuits operating with distinct mechanisms are differently robust to perturbation and modulation. ELife, 2022, 11, .	2.8	7
200	Characterization of calcium/calmodulin-dependent protein kinase II activity in the nervous system of the lobster,Panulirus interruptus. Invertebrate Neuroscience, 1998, 3, 335-345.	1.8	6
201	Motor systems Motor control from molecules to bedside. Current Opinion in Neurobiology, 1998, 8, 693-696.	2.0	5
202	Exciting guts with GABA. Nature Neuroscience, 2003, 6, 1121-1122.	7.1	5
203	Common features of diverse circuits. Current Opinion in Neurobiology, 2012, 22, 565-567.	2.0	5
204	Looking out for future scientists. ELife, 2014, 3, e04901.	2.8	5
205	Characterization of transmitter release as a response of vertebrate neural tissue to Erythrosin B. Brain Research, 1984, 305, 259-270.	1.1	4
206	Convergence and Divergence of Cotransmitter Systems in the Crab Stomatogastric Nervous System. , 2002, , 20-33.		4
207	Not just Salk. Science, 2017, 357, 1105-1106.	6.0	4
208	Theoretical musings. ELife, 2020, 9, .	2.8	4
209	The emperor's new clothes. Current Biology, 2003, 13, R166.	1.8	3
210	Faster Than Ever: Articles in PresS. Journal of Neurophysiology, 2003, 89, 1-1.	0.9	3
211	Blue light responses in Cancer borealis stomatogastric ganglion neurons. Current Biology, 2022, 32, 1439-1445.e3.	1.8	3
212	Self-assembly of oscillatory neurons and networks. Lecture Notes in Computer Science, 1999, , 1-11.	1.0	2
213	Bitter and twisted. Current Biology, 2000, 10, R1.	1.8	2
214	Plateau properties in pain pathways. Nature Neuroscience, 2003, 6, 210-212.	7.1	2
215	Eve Marder. Current Biology, 2007, 17, R5-R7.	1.8	2
216	Editorial overview: Microcircuit evolution and computation 2016. Current Opinion in Neurobiology, 2016, 41, 188-190.	2.0	2

#	Article	IF	Citations
217	The importance of remembering. ELife, 2017, 6, .	2.8	2
218	Charismatic and Visionary Leaders. ENeuro, 2021, 8, ENEURO.0125-21.2021.	0.9	2
219	Intentional text. ELife, 2020, 9, .	2.8	2
220	Bars and medals. ELife, 2015, 4, e05787.	2.8	2
221	Authorship then and now. ELife, 2022, 11, .	2.8	2
222	The rites of spring. Current Biology, 1999, 9, R311.	1.8	1
223	Motor systems. Current Opinion in Neurobiology, 2006, 16, 601-603.	2.0	1
224	Rejecting arrogance. Current Biology, 2006, 16, R70.	1.8	1
225	The roads not taken. Current Biology, 2008, 18, R725-R726.	1.8	1
226	The voice of evidence. ELife, 2018, 7, .	2.8	1
227	Frequency and burst duration in oscillating neurons and two-cell networks. Biological Cybernetics, 1993, 69, 375-383.	0.6	1
228	New Initiatives. Journal of Neurophysiology, 2003, 89, 645-645.	0.9	1
229	Luck, jobs and learning. ELife, 2013, 2, e00676.	2.8	1
230	In numbers we trust?. ELife, 2014, 3, e02791.	2.8	1
231	Crossing oceans. ELife, 2013, 2, e00477.	2.8	1
232	Owning your mistakes. ELife, 2015, 4, e11628.	2.8	1
233	Lost knowledge. Current Biology, 2022, 32, R144-R145.	1.8	1
234	Reply to Kotler etÂal.: Changing ion concentrations in conductance-based models. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2121944119.	3.3	1

#	Article	IF	Citations
235	Neuromodulation in Small Networks. , 2022, , 2300-2313.		1
236	Maintaining the joy of discovery. ELife, 0, 11, .	2.8	1
237	Neurobiology. Science, 1982, 217, 924-925.	6.0	0
238	Modifiability of pattern generation. Current Biology, 1992, 2, 51-52.	1.8	0
239	On ambiguity. Current Biology, 1999, 9, R541.	1.8	0
240	My word. Current Biology, 2000, 10, R613.	1.8	0
241	Change Without Change. Journal of Neurophysiology, 2002, 88, 2177-2177.	0.9	0
242	Welcome Theory. Journal of Neurophysiology, 2004, 91, 2389-2389.	0.9	0
243	Lecturers. Les Houches Summer School Proceedings, 2005, 80, ix.	0.2	0
244	Course 1 Experimenting with theory. Les Houches Summer School Proceedings, 2005, 80, 1-16.	0.2	0
245	Honoring Our Past. Journal of Neurophysiology, 2005, 93, 3023-3023.	0.9	0
246	TRIBUTES TO JEFF HALL. Journal of Neurogenetics, 2007, 21, 169-182.	0.6	0
247	Why so long?. Current Biology, 2010, 20, R426.	1.8	0
248	How conductance distributions are shaped by activity-dependent regulation rules. BMC Neuroscience, 2013, 14, .	0.8	0
249	Temperature-robust neural activity using feedback control of ion channel expression. BMC Neuroscience, 2014, 15, .	0.8	0
250	Truth even unto its innermost parts. ELife, 2021, 10, .	2.8	0
251	KEEPING THE RECORD STRAIGHTâ€”The Legacy Project and Letters to the Editor. Journal of Neurophysiology, 2003, 90, 2087-2087.	0.9	0
252	Using the Dynamic Clamp to Explore the Relationship Between Intrinsic Activity and Network Dynamics. , 2009, , 275-285.		0

#	Article	IF	Citations
253	A good life. ELife, 2012, 1, e00353.	2.8	0
254	Neuromodulation in Small Networks. , 2013, , 1-15.		0
255	Grandmother elephants. ELife, 2013, 2, e01140.	2.8	0
256	Lost voices. ELife, 2015, 4, .	2.8	0
257	The rites of spring, Take 2. ELife, 2016, 5, .	2.8	0
258	Uniting the nations of science. ELife, 2018, 7, .	2.8	0
259	Love writing. ELife, 2019, 8, .	2.8	0
260	Watching jellyfish. ELife, 2019, 8, .	2.8	0
261	Stepping down. ELife, 2020, 9, .	2.8	0