Matthew N Rasband

List of Publications by Year
in descending order

138 papers	11,691 citations	20036 63 h-index	34195 103 g-index
162 all docs	162 docs citations	162 times ranked	10546 citing authors

#	Article	IF	Citations
1	Ankyrin-R Links Kv3.3 to the Spectrin Cytoskeleton and Is Required for Purkinje Neuron Survival. Journal of Neuroscience, 2022, 42, 2-15.	1.7	13
2	Disruption of MeCP2â€"TCF20 complex underlies distinct neurodevelopmental disorders. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	15
3	Î²IV-Spectrin Autoantibodies in 2 Individuals With Neuropathy of Possible Paraneoplastic Origin. Neurology: Neuroimmunology and NeuroInflammation, 2022, 9, .	3.1	4
4	Mechanisms of node of Ranvier assembly. Nature Reviews Neuroscience, 2021, 22, 7-20.	4.9	89
5	Endogenously expressed Ranbp2 is not at the axon initial segment. Journal of Cell Science, 2021, 134, .	1.2	10
6	Lose it to use it. Journal of Cell Biology, 2021, 220, .	2.3	0
7	Spectrins. Current Biology, 2021, 31, R504-R506.	1.8	7
8	Qki regulates myelinogenesis through Srebp2-dependent cholesterol biosynthesis. ELife, 2021, 10, .	2.8	13
9	Ankyrin-R regulates fast-spiking interneuron excitability through perineuronal nets and Kv3.1b K+ channels. ELife, 2021, 10, .	2.8	26
10	Ankyrins and neurological disease. Current Opinion in Neurobiology, 2021, 69, 51-57.	2.0	27
11	Ankyrin-dependent Na+ channel clustering prevents neuromuscular synapse fatigue. Current Biology, 2021, 31, 3810-3819.e4.	1.8	8
12	Dynorphin, wonâ€™t you myelinate my neighbor?. Neuron, 2021, 109, 3537-3539.	3.8	0
13	NuMA1 promotes axon initial segment assembly through inhibition of endocytosis. Journal of Cell Biology, 2020, 219, jcb.201907048.	2.3	22
14	Mapping axon initial segment structure and function by multiplexed proximity biotinylation. Nature Communications, 2020, 11, 100.	5.8	73
15	Saltatory Conduction: Jumping to New Conclusions. Current Biology, 2020, 30, R326-R328.	1.8	3
16	Precise Spatiotemporal Control of Nodal Na+ Channel Clustering by Bone Morphogenetic Protein-1/Tolloid-like Proteinases. Neuron, 2020, 106, 806-815.e6.	3.8	9
17	Mature myelin maintenance requires Qki to coactivate PPARÎ²-RXRÎ±â€"mediated lipid metabolism. Journal of Clinical Investigation, 2020, 130, 2220-2236.	3.9	50
18	Nodal Î² spectrins are required to maintain Na+ channel clustering and axon integrity. ELife, 2020, 9, .	2.8	20

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19	Remyelination alters the pattern of myelin in the cerebral cortex. ELife, 2020, 9, .	2.8	67
20	Î² spectrin-dependent and domain specific mechanisms for Na+ channel clustering. ELife, 2020, 9, .	2.8	17
21	The SIZ of Pain. Neuron, 2019, 102, 709-711.	3.8	3
22	Defining new mechanistic roles for Î±II spectrin in cardiac function. Journal of Biological Chemistry, 2019, 294, 9576-9591.	1.6	9
23	Î²IV Spectrinopathies Cause Profound Intellectual Disability, Congenital Hypotonia, and Motor Axonal Neuropathy. American Journal of Human Genetics, 2018, 102, 1158-1168.	2.6	57
24	Axon initial segments: structure, function, and disease. Annals of the New York Academy of Sciences, 2018, 1420, 46-61.	1.8	136
25	Glial Î²II Spectrin Contributes to Paranode Formation and Maintenance. Journal of Neuroscience, 2018, 38, 6063-6075.	1.7	25
26	An Î±II Spectrin-Based Cytoskeleton Protects Large-Diameter Myelinated Axons from Degeneration. Journal of Neuroscience, 2017, 37, 11323-11334.	1.7	58
27	Î±II Spectrin Forms a Periodic Cytoskeleton at the Axon Initial Segment and Is Required for Nervous System Function. Journal of Neuroscience, 2017, 37, 11311-11322.	1.7	63
28	Reassembly of the axon initial segment and nodes of Ranvier in regenerated axons of the central nervous system. Neural Regeneration Research, 2017, 12, 1276.	1.6	1
29	The paranodal cytoskeleton clusters Na+ channels at nodes of Ranvier. ELife, 2017, 6, .	2.8	57
30	Loss of Frataxin induces iron toxicity, sphingolipid synthesis, and Pdk1/Mef2 activation, leading to neurodegeneration. ELife, 2016, 5, .	2.8	74
31	Cytoskeletal control of axon domain assembly and function. Current Opinion in Neurobiology, 2016, 39, 116-121.	2.0	52
32	Amyloid-Î² plaques disrupt axon initial segments. Experimental Neurology, 2016, 281, 93-98.	2.0	49
33	Serotonin modulates spike probability in the axon initial segment through HCN channels. Nature Neuroscience, 2016, 19, 826-834.	7.1	73
34	Organization of the axon initial segment: Actin like a fence. Journal of Cell Biology, 2016, 215, 9-11.	2.3	15
35	Reassembly of Excitable Domains after CNS Axon Regeneration. Journal of Neuroscience, 2016, 36, 9148-9160.	1.7	32
36	Dysfunction of the Î²₂-spectrin-based pathway in human heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H1583-H1591.	1.5	23

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37	Submembranous cytoskeletons stabilize nodes of Ranvier. Experimental Neurology, 2016, 283, 446-451.	2.0	25
38	The Nodes of Ranvier: Molecular Assembly and Maintenance. Cold Spring Harbor Perspectives in Biology, 2016, 8, a020495.	2.3	136
39	Glial Contributions to Neural Function and Disease. Molecular and Cellular Proteomics, 2016, 15, 355-361.	2.5	41
40	Developmental Changes in Expression of Î²IV Spectrin Splice Variants at Axon Initial Segments and Nodes of Ranvier. Frontiers in Cellular Neuroscience, 2016, 10, 304.	1.8	25
41	Loss of Frataxin activates the iron/sphingolipid/PDK1/Mef2 pathway in mammals. ELife, 2016, 5, .	2.8	61
42	The Ins and Outs of Polarized Axonal Domains. Annual Review of Cell and Developmental Biology, 2015, 31, 647-667.	4.0	21
43	Dysfunction in the Î²II Spectrinâ€"Dependent Cytoskeleton Underlies Human Arrhythmia. Circulation, 2015, 131, 695-708.	1.6	56
44	Axon Initial Segmentâ€"Associated Microglia. Journal of Neuroscience, 2015, 35, 2283-2292.	1.7	107
45	Subcellular Patterning: Axonal Domains with Specialized Structure and Function. Developmental Cell, 2015, 32, 459-468.	3.1	29
46	BK Channels Localize to the Paranodal Junction and Regulate Action Potentials in Myelinated Axons of Cerebellar Purkinje Cells. Journal of Neuroscience, 2015, 35, 7082-7094.	1.7	28
47	Daam2-PIP5K Is a Regulatory Pathway for Wnt Signaling and Therapeutic Target for Remyelination in the CNS. Neuron, 2015, 85, 1227-1243.	3.8	69
48	The Polarity Protein Pals1 Regulates Radial Sorting of Axons. Journal of Neuroscience, 2015, 35, 10474-10484.	1.7	17
49	Neural ECM molecules in axonal and synaptic homeostatic plasticity. Progress in Brain Research, 2014, 214, 81-100.	0.9	48
50	A hierarchy of ankyrin-spectrin complexes clusters sodium channels at nodes of Ranvier. Nature Neuroscience, 2014, 17, 1664-1672.	7.1	94
51	Glial ankyrins facilitate paranodal axoglial junction assembly. Nature Neuroscience, 2014, 17, 1673-1681.	7.1	82
52	Preparation of Primary Neurons for Visualizing Neurites in a Frozen-hydrated State Using Cryo-Electron Tomography. Journal of Visualized Experiments, 2014, , e50783.	0.2	10
53	Axon initial segments: diverse and dynamic neuronal compartments. Current Opinion in Neurobiology, 2014, 27, 96-102.	2.0	73
54	Computation identifies structural features that govern neuronal firing properties in slowly adapting touch receptors. ELife, 2014, 3, e01488.	2.8	83

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55	Cell Surface Protein-protein Binding on COS-7 Cells. Bio-protocol, 2014, 4, .	0.2	1
56	Blast Wave Exposure Impairs Memory and Decreases Axon Initial Segment Length. Journal of Neurotrauma, 2013, 30, 741-751.	1.7	83
57	Genetic Reduction of the Î±1 Subunit of Na/K-ATPase Corrects Multiple Hippocampal Phenotypes in Angelman Syndrome. Cell Reports, 2013, 4, 405-412.	2.9	66
58	Excitable Domains of Myelinated Nerves. Current Topics in Membranes, 2013, 72, 159-192.	0.5	35
59	Remodeling of the Axon Initial Segment After Focal Cortical and White Matter Stroke. Stroke, 2013, 44, 182-189.	1.0	97
60	Cytoskeleton: Axons Earn Their Stripes. Current Biology, 2013, 23, R197-R198.	1.8	15
61	Na⁺Channel-Dependent Recruitment of Na_vÎ²4 to Axon Initial Segments and Nodes of Ranvier. Journal of Neuroscience, 2013, 33, 6191-6202.	1.7	50
62	Three Mechanisms Assemble Central Nervous System Nodes of Ranvier. Neuron, 2013, 78, 469-482.	3.8	151
63	Membrane domain organization of myelinated axons requires Î²II spectrin. Journal of Cell Biology, 2013, 203, 437-443.	2.3	70
64	Mechanisms of Hearing Loss after Blast Injury to the Ear. PLoS ONE, 2013, 8, e67618.	1.1	117
65	Membrane domain organization of myelinated axons requires Î²II spectrin. Journal of General Physiology, 2013, 142, 1426OIA45.	0.9	0
66	Myelin Structure and Biochemistry. , 2012, , 180-199.		24
67	Formation and Maintenance of Myelin. , 2012, , 569-581.		2
68	An AnkyrinG-Binding Motif Is Necessary and Sufficient for Targeting Na_v1.6 Sodium Channels to Axon Initial Segments and Nodes of Ranvier. Journal of Neuroscience, 2012, 32, 7232-7243.	1.7	115
69	Neurofascin as a target for autoantibodies in peripheral neuropathies. Neurology, 2012, 79, 2241-2248.	1.5	211
70	IÎºBÎ± is not required for axon initial segment assembly. Molecular and Cellular Neurosciences, 2012, 50, 1-9.	1.0	27
71	A Distal Axonal Cytoskeleton Forms an Intra-Axonal Boundary that Controls Axon Initial Segment Assembly. Cell, 2012, 149, 1125-1139.	13.5	230
72	Dysfunction of nodes of Ranvier: A mechanism for anti-ganglioside antibody-mediated neuropathies. Experimental Neurology, 2012, 233, 534-542.	2.0	129

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73	Short- and Long-Term Plasticity at the Axon Initial Segment. Journal of Neuroscience, 2011, 31, 16049-16055.	1.7	143
74	Composition, assembly, and maintenance of excitable membrane domains in myelinated axons. Seminars in Cell and Developmental Biology, 2011, 22, 178-184.	2.3	51
75	The axon initial segment in nervous system disease and injury. European Journal of Neuroscience, 2011, 34, 1609-1619.	1.2	101
76	Maintenance of neuronal polarity. Developmental Neurobiology, 2011, 71, 474-482.	1.5	22
77	Alterations in Intrinsic Membrane Properties and the Axon Initial Segment in a Mouse Model of Angelman Syndrome. Journal of Neuroscience, 2011, 31, 17637-17648.	1.7	114
78	Schwann cell spectrins modulate peripheral nerve myelination. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8009-8014.	3.3	56
79	Di-rectifying Tau. EMBO Journal, 2011, 30, 4699-4700.	3.5	3
80	The axon initial segment and the maintenance of neuronal polarity. Nature Reviews Neuroscience, 2010, 11, 552-562.	4.9	368
81	ADAM22, A Kv1 Channel-Interacting Protein, Recruits Membrane-Associated Guanylate Kinases to Juxtaparanodes of Myelinated Axons. Journal of Neuroscience, 2010, 30, 1038-1048.	1.7	111
82	Oligodendrocyte Myelin Glycoprotein Does Not Influence Node of Ranvier Structure or Assembly. Journal of Neuroscience, 2010, 30, 14476-14481.	1.7	26
83	Novel forms of neurofascin 155 in the central nervous system: alterations in paranodal disruption models and multiple sclerosis. Brain, 2010, 133, 389-405.	3.7	29
84	Clustered K+ channel complexes in axons. Neuroscience Letters, 2010, 486, 101-106.	1.0	51
85	A Î²IV-spectrin/CaMKII signaling complex is essential for membrane excitability in mice. Journal of Clinical Investigation, 2010, 120, 3508-3519.	3.9	227
86	Disruption of the Axon Initial Segment Cytoskeleton Is a New Mechanism for Neuronal Injury. Journal of Neuroscience, 2009, 29, 13242-13254.	1.7	204
87	Electrical Excitability of Early Neurons in the Human Cerebral Cortex during the Second Trimester of Gestation. Cerebral Cortex, 2009, 19, 1795-1805.	1.6	95
88	Converging on the Origins of Axonal Ion Channel Clustering. PLoS Genetics, 2009, 5, e1000340.	1.5	5
89	Postnatal development of synaptic structure proteins in pyramidal neuron axon initial segments in monkey prefrontal cortex. Journal of Comparative Neurology, 2009, 514, 353-367.	0.9	52
90	Proteomic analysis of optic nerve lipid rafts reveals new paranodal proteins. Journal of Neuroscience Research, 2009, 87, 3502-3510.	1.3	25

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91	Molecular mechanisms of node of Ranvier formation. Current Opinion in Cell Biology, 2008, 20, 616-623.	2.6	106
92	The functional organization and assembly of the axon initial segment. Current Opinion in Neurobiology, 2008, 18, 307-313.	2.0	100
93	Neonatal Chimerization with Human Glial Progenitor Cells Can Both Remyelinate and Rescue the Otherwise Lethally Hypomyelinated Shiverer Mouse. Cell Stem Cell, 2008, 2, 553-565.	5.2	293
94	Multiple Molecular Interactions Determine the Clustering of Caspr2 and Kv1 Channels in Myelinated Axons. Journal of Neuroscience, 2008, 28, 14213-14222.	1.7	106
95	Spectrin and Ankyrin-Based Cytoskeletons at Polarized Domains in Myelinated Axons. Experimental Biology and Medicine, 2008, 233, 394-400.	1.1	51
96	Na+ channels get anchoredâ€¦with a little help. Journal of Cell Biology, 2008, 183, 975-977.	2.3	9
97	Postsynaptic Density-93 Clusters Kv1 Channels at Axon Initial Segments Independently of Caspr2. Journal of Neuroscience, 2008, 28, 5731-5739.	1.7	114
98	AnkyrinG is required for maintenance of the axon initial segment and neuronal polarity. Journal of Cell Biology, 2008, 183, 635-640.	2.3	329
99	Anti-GM1 Antibodies Cause Complement-Mediated Disruption of Sodium Channel Clusters in Peripheral Motor Nerve Fibers. Journal of Neuroscience, 2007, 27, 3956-3967.	1.7	331
100	Neurofascin assembles a specialized extracellular matrix at the axon initial segment. Journal of Cell Biology, 2007, 178, 875-886.	2.3	229
101	Î²IV spectrin is recruited to axon initial segments and nodes of Ranvier by ankyrinG. Journal of Cell Biology, 2007, 176, 509-519.	2.3	169
102	Neurofascin as a novel target for autoantibody-mediated axonal injury. Journal of Experimental Medicine, 2007, 204, 2363-2372.	4.2	355
103	Gangliosides contribute to stability of paranodal junctions and ion channel clusters in myelinated nerve fibers. Glia, 2007, 55, 746-757.	2.5	189
104	A central role for Necl4 (SynCAM4) in Schwann cellâ€“axon interaction and myelination. Nature Neuroscience, 2007, 10, 861-869.	7.1	178
105	Î±II-Spectrin Is Essential for Assembly of the Nodes of Ranvier in Myelinated Axons. Current Biology, 2007, 17, 562-568.	1.8	82
106	Neuron-Glia Interactions at the Node of Ranvier. , 2006, 43, 129-149.		9
107	Intrinsic and extrinsic determinants of ion channel localization in neurons. Journal of Neurochemistry, 2006, 98, 1345-1352.	2.1	58
108	Glial regulation of the axonal membrane at nodes of Ranvier. Current Opinion in Neurobiology, 2006, 16, 508-514.	2.0	57

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109	Age-related molecular reorganization at the node of Ranvier. Journal of Comparative Neurology, 2006, 495, 351-362.	0.9	76
110	Chapter 11 Voltageâ€Gated Potassium Channels in Sensory Neurons. Current Topics in Membranes, 2006, 57, 323-351.	0.5	1
111	Correction: Integrin-linked kinase is required for laminin-2â€"induced oligodendrocyte cell spreading and CNS myelination. Journal of Cell Biology, 2006, 174, 315-315.	2.3	0
112	Early events in node of Ranvier formation during myelination and remyelination in the PNS. Neuron Glia Biology, 2006, 2, 69-79.	2.0	72
113	Spectrins and AnkyrinB Constitute a Specialized Paranodal Cytoskeleton. Journal of Neuroscience, 2006, 26, 5230-5239.	1.7	148
114	Mice with Conditional Inactivation of Fibroblast Growth Factor Receptor-2 Signaling in Oligodendrocytes Have Normal Myelin But Display Dramatic Hyperactivity when Combined with Cnp1 Inactivation. Journal of Neuroscience, 2006, 26, 12339-12350.	1.7	49
115	WAVE1 Is Required for Oligodendrocyte Morphogenesis and Normal CNS Myelination. Journal of Neuroscience, 2006, 26, 5849-5859.	1.7	89
116	CNP is required for maintenance of axon-glia interactions at nodes of Ranvier in the CNS. Glia, 2005, 50, 86-90.	2.5	124
117	Where Is the Spike Generator of the Cochlear Nerve? Voltage-Gated Sodium Channels in the Mouse Cochlea. Journal of Neuroscience, 2005, 25, 6857-6868.	1.7	147
118	Potassium Channel Organization of Myelinated and Demyelinated Axons. , 2005, , 57-67.		6
119	Does Paranode Formation and Maintenance Require Partitioning of Neurofascin 155 into Lipid Rafts?. Journal of Neuroscience, 2004, 24, 3176-3185.	1.7	127
120	Î²IVÎ£1 spectrin stabilizes the nodes of Ranvier and axon initial segments. Journal of Cell Biology, 2004, 166, 983-990.	2.3	124
121	ÂIV Spectrins Are Essential for Membrane Stability and the Molecular Organization of Nodes of Ranvier. Journal of Neuroscience, 2004, 24, 7230-7240.	1.7	125
122	Proteomic mapping provides powerful insights into functional myelin biology. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4643-4648.	3.3	109
123	The myelin-axolemmal complex: biochemical dissection and the role of galactosphingolipids. Journal of Neurochemistry, 2004, 87, 995-1009.	2.1	47
124	It's ?juxta? potassium channel!. Journal of Neuroscience Research, 2004, 76, 749-757.	1.3	74
125	Paranodal transverse bands are required for maintenance but not initiation of Nav1.6 sodium channel clustering in CNS optic nerve axons. Glia, 2003, 44, 173-182.	2.5	31
126	Dysregulation of axonal sodium channel isoforms after adult-onset chronic demyelination. Journal of Neuroscience Research, 2003, 73, 465-470.	1.3	65

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127	Integrin-linked kinase is required for laminin-2â€“induced oligodendrocyte cell spreading and CNS myelination. Journal of Cell Biology, 2003, 163, 397-408.	2.3	148
128	Clustering of neuronal potassium channels is independent of their interaction with PSD-95. Journal of Cell Biology, 2002, 159, 663-672.	2.3	79
129	Developmental Clustering of Ion Channels at and near the Node of Ranvier. Developmental Biology, 2001, 236, 5-16.	0.9	129
130	Compact Myelin Dictates the Differential Targeting of Two Sodium Channel Isoforms in the Same Axon. Neuron, 2001, 30, 91-104.	3.8	373
131	Subunit composition and novel localization of K+ channels in spinal cord. Journal of Comparative Neurology, 2001, 429, 166-176.	0.9	64
132	Distinct potassium channels on pain-sensing neurons. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 13373-13378.	3.3	326
133	Ion channel sequestration in central nervous system axons. Journal of Physiology, 2000, 525, 63-73.	1.3	102
134	K+ channel distribution and clustering in developing and hypomyelinated axons of the optic nerve. Journal of Neurocytology, 1999, 28, 319-331.	1.6	100
135	Dependence of Nodal Sodium Channel Clustering on Paranodal Axoglial Contact in the Developing CNS. Journal of Neuroscience, 1999, 19, 7516-7528.	1.7	304
136	Mice Deficient for Tenascin-R Display Alterations of the Extracellular Matrix and Decreased Axonal Conduction Velocities in the CNS. Journal of Neuroscience, 1999, 19, 4245-4262.	1.7	223
137	Nerve Conduction Block by Nitric Oxide That Is Mediated by the Axonal Environment. Journal of Neurophysiology, 1998, 79, 529-536.	0.9	62
138	Potassium Channel Distribution, Clustering, and Function in Remyelinating Rat Axons. Journal of Neuroscience, 1998, 18, 36-47.	1.7	256