David A Lyons

List of Publications by Year
in descending order

53 papers	4,837 citations	147566 31 h-index	168136 53 g-index
83 all docs	83 docs citations	83 times ranked	5351 citing authors

#	Article	IF	Citations
1	Glia as architects of central nervous system formation and function. Science, 2018, 362, 181-185.	6.0	520
2	Synaptic vesicle release regulates myelin sheath number of individual oligodendrocytes in vivo. Nature Neuroscience, 2015, 18, 628-630.	7.1	332
3	Myelin Membrane Wrapping of CNS Axons by PI(3,4,5)P3-Dependent Polarized Growth at the Inner Tongue. Cell, 2014, 156, 277-290.	13.5	326
4	erbb3 and erbb2 Are Essential for Schwann Cell Migration and Myelination in Zebrafish. Current Biology, 2005, 15, 513-524.	1.8	300
5	Individual Oligodendrocytes Have Only a Few Hours in which to Generate New Myelin Sheaths InÂVivo. Developmental Cell, 2013, 25, 599-609.	3.1	261
6	A mirror-symmetric cell division that orchestrates neuroepithelial morphogenesis. Nature, 2007, 446, 797-800.	13.7	205
7	Actin Filament Turnover Drives Leading Edge Growth during Myelin Sheath Formation in the Central Nervous System. Developmental Cell, 2015, 34, 139-151.	3.1	183
8	Individual axons regulate the myelinating potential of single oligodendrocytes in vivo. Development (Cambridge), 2011, 138, 4443-4450.	1.2	178
9	On Myelinated Axon Plasticity and Neuronal Circuit Formation and Function. Journal of Neuroscience, 2017, 37, 10023-10034.	1.7	168
10	Ca2+ activity signatures of myelin sheath formation and growth in vivo. Nature Neuroscience, 2018, 21, 19-23.	7.1	151
11	Individual Neuronal Subtypes Exhibit Diversity in CNS Myelination Mediated by Synaptic Vesicle Release. Current Biology, 2016, 26, 1447-1455.	1.8	147
12	Kif1b is essential for mRNA localization in oligodendrocytes and development of myelinated axons. Nature Genetics, 2009, 41, 854-858.	9.4	145
13	Myelin Dynamics Throughout Life: An Ever-Changing Landscape?. Frontiers in Cellular Neuroscience, 2018, 12, 424.	1.8	121
14	A genetic screen identifies genes essential for development of myelinated axons in zebrafish. Developmental Biology, 2006, 298, 118-131.	0.9	112
15	Glial Cell Development and Function in Zebrafish. Cold Spring Harbor Perspectives in Biology, 2015, 7, a020586.	2.3	102
16	Monitoring neural progenitor fate through multiple rounds of division in an intact vertebrate brain. Development (Cambridge), 2003, 130, 3427-3436.	1.2	99
17	An automated high-resolution in vivo screen in zebrafish to identify chemical regulators of myelination. ELife, 2018, 7, .	2.8	93
18	Î±II-Spectrin Is Essential for Assembly of the Nodes of Ranvier in Myelinated Axons. Current Biology, 2007, 17, 562-568.	1.8	82

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19	KBP is essential for axonal structure, outgrowth and maintenance in zebrafish, providing insight into the cellular basis of Goldberg-Shprintzen syndrome. Development (Cambridge), 2008, 135, 599-608.	1.2	82
20	Revisiting remyelination: Towards a consensus on the regeneration of CNS myelin. Seminars in Cell and Developmental Biology, 2021, 116, 3-9.	2.3	82
21	Axonal selection and myelin sheath generation in the central nervous system. Current Opinion in Cell Biology, 2013, 25, 512-519.	2.6	79
22	Somatodendritic Expression of JAM2 Inhibits Oligodendrocyte Myelination. Neuron, 2016, 91, 824-836.	3.8	79
23	Myelinated axon physiology and regulation of neural circuit function. Glia, 2019, 67, 2050-2062.	2.5	79
24	Endothelin signalling mediates experience-dependent myelination in the CNS. ELife, 2019, 8, .	2.8	64
25	Adaptive myelination from fish to man. Brain Research, 2016, 1641, 149-161.	1.1	58
26	Dissecting Mechanisms of Myelinated Axon Formation Using Zebrafish. Methods in Cell Biology, 2011, 105, 25-62.	0.5	54
27	New oligodendrocytes exhibit more abundant and accurate myelin regeneration than those that survive demyelination. Nature Neuroscience, 2022, 25, 415-420.	7.1	54
28	TET1-mediated DNA hydroxymethylation regulates adult remyelination in mice. Nature Communications, 2021, 12, 3359.	5.8	47
29	nsf Is Essential for Organization of Myelinated Axons in Zebrafish. Current Biology, 2006, 16, 636-648.	1.8	45
30	Calcium Signaling in the Oligodendrocyte Lineage: Regulators and Consequences. Annual Review of Neuroscience, 2020, 43, 163-186.	5.0	45
31	Drug discovery for remyelination and treatment of MS. Glia, 2017, 65, 1565-1589.	2.5	41
32	Myelinating Schwann cells ensheath multiple axons in the absence of E3 ligase component Fbxw7. Nature Communications, 2019, 10, 2976.	5.8	39
33	ErbB signaling has a role in radial sorting independent of Schwann cell number. Glia, 2011, 59, 1047-1055.	2.5	38
34	Myelination of Neuronal Cell Bodies when Myelin Supply Exceeds Axonal Demand. Current Biology, 2018, 28, 1296-1305.e5.	1.8	38
35	CRISPR gRNA phenotypic screening in zebrafish reveals pro-regenerative genes in spinal cord injury. PLoS Genetics, 2021, 17, e1009515.	1.5	36
36	Oligodendrocyte Neurofascin Independently Regulates Both Myelin Targeting and Sheath Growth in the CNS. Developmental Cell, 2019, 51, 730-744.e6.	3.1	35

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37	iPSC-derived myelinoids to study myelin biology of humans. Developmental Cell, 2021, 56, 1346-1358.e6.	3.1	34
38	Axonal Regulation of Central Nervous System Myelination: Structure and Function. Neuroscientist, 2018, 24, 7-21.	2.6	32
39	Myelination induces axonal hotspots of synaptic vesicle fusion that promote sheath growth. Current Biology, 2021, 31, 3743-3754.e5.	1.8	32
40	Oligodendrocyte Development in the Absence of Their Target Axons In Vivo. PLoS ONE, 2016, 11, e0164432.	1.1	30
41	Regeneration of myelin sheaths of normal length and thickness in the zebrafish CNS correlates with growth of axons in caliber. PLoS ONE, 2017, 12, e0178058.	1.1	28
42	Imaging Myelination In Vivo Using Transparent Animal Models. Brain Plasticity, 2016, 2, 3-29.	1.9	25
43	Light sheet microscopy with acoustic sample confinement. Nature Communications, 2019, 10, 669.	5.8	25
44	Oligodendrocyte HCN2 Channels Regulate Myelin Sheath Length. Journal of Neuroscience, 2021, 41, 7954-7964.	1.7	20
45	Neuronal activity disrupts myelinated axon integrity in the absence of NKCC1b. Journal of Cell Biology, 2020, 219, .	2.3	18
46	Forward Genetic Screen Using Zebrafish to Identify New Genes Involved in Myelination. Methods in Molecular Biology, 2019, 1936, 185-209.	0.4	9
47	Clusters of neuronal neurofascin prefigure the position of a subset of nodes of Ranvier along individual central nervous system axons inÂvivo. Cell Reports, 2022, 38, 110366.	2.9	7
48	A Drug-Inducible Transgenic Zebrafish Model for Myelinating Glial Cell Ablation. Methods in Molecular Biology, 2019, 1936, 227-238.	0.4	6
49	PTPN21/Pez Is a Novel and Evolutionarily Conserved Key Regulator of Inflammation InÂVivo. Current Biology, 2021, 31, 875-883.e5.	1.8	5
50	Insights Into Central Nervous System Glial Cell Formation and Function From Zebrafish. Frontiers in Cell and Developmental Biology, 2021, 9, 754606.	1.8	5
51	Targeting Mechanisms in Myelinated Axons: Not All Nodes Are Created Equal. Developmental Cell, 2012, 22, 7-9.	3.1	4
52	Axonal Domains: Role for Paranodal Junction in Node of Ranvier Assembly. Current Biology, 2008, 18, R876-R879.	1.8	2
53	Manipulating Neuronal Activity in the Developing Zebrafish Spinal Cord to Investigate Adaptive Myelination. Methods in Molecular Biology, 2019, 1936, 211-225.	0.4	1