

David A Lyons

List of Publications by Year in descending order

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53
papers

4,837
citations

147801

31
h-index

168389

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. <i>Science</i> , 2018, 362, 181-185.	12.6	520
2	Synaptic vesicle release regulates myelin sheath number of individual oligodendrocytes in vivo. <i>Nature Neuroscience</i> , 2015, 18, 628-630.	14.8	332
3	Myelin Membrane Wrapping of CNS Axons by PI(3,4,5)P3-Dependent Polarized Growth at the Inner Tongue. <i>Cell</i> , 2014, 156, 277-290.	28.9	326
4	erbb3 and erbb2 Are Essential for Schwann Cell Migration and Myelination in Zebrafish. <i>Current Biology</i> , 2005, 15, 513-524.	3.9	300
5	Individual Oligodendrocytes Have Only a Few Hours in which to Generate New Myelin Sheaths In Vivo. <i>Developmental Cell</i> , 2013, 25, 599-609.	7.0	261
6	A mirror-symmetric cell division that orchestrates neuroepithelial morphogenesis. <i>Nature</i> , 2007, 446, 797-800.	27.8	205
7	Actin Filament Turnover Drives Leading Edge Growth during Myelin Sheath Formation in the Central Nervous System. <i>Developmental Cell</i> , 2015, 34, 139-151.	7.0	183
8	Individual axons regulate the myelinating potential of single oligodendrocytes in vivo. <i>Development (Cambridge)</i> , 2011, 138, 4443-4450.	2.5	178
9	On Myelinated Axon Plasticity and Neuronal Circuit Formation and Function. <i>Journal of Neuroscience</i> , 2017, 37, 10023-10034.	3.6	168
10	Ca ²⁺ activity signatures of myelin sheath formation and growth in vivo. <i>Nature Neuroscience</i> , 2018, 21, 19-23.	14.8	151
11	Individual Neuronal Subtypes Exhibit Diversity in CNS Myelination Mediated by Synaptic Vesicle Release. <i>Current Biology</i> , 2016, 26, 1447-1455.	3.9	147
12	Kif1b is essential for mRNA localization in oligodendrocytes and development of myelinated axons. <i>Nature Genetics</i> , 2009, 41, 854-858.	21.4	145
13	Myelin Dynamics Throughout Life: An Ever-Changing Landscape?. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 424.	3.7	121
14	A genetic screen identifies genes essential for development of myelinated axons in zebrafish. <i>Developmental Biology</i> , 2006, 298, 118-131.	2.0	112
15	Glial Cell Development and Function in Zebrafish. <i>Cold Spring Harbor Perspectives in Biology</i> , 2015, 7, a020586.	5.5	102
16	Monitoring neural progenitor fate through multiple rounds of division in an intact vertebrate brain. <i>Development (Cambridge)</i> , 2003, 130, 3427-3436.	2.5	99
17	An automated high-resolution in vivo screen in zebrafish to identify chemical regulators of myelination. <i>ELife</i> , 2018, 7, .	6.0	93
18	βII-Spectrin Is Essential for Assembly of the Nodes of Ranvier in Myelinated Axons. <i>Current Biology</i> , 2007, 17, 562-568.	3.9	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. <i>Development (Cambridge)</i> , 2008, 135, 599-608.	2.5	82
20	Revisiting remyelination: Towards a consensus on the regeneration of CNS myelin. <i>Seminars in Cell and Developmental Biology</i> , 2021, 116, 3-9.	5.0	82
21	Axonal selection and myelin sheath generation in the central nervous system. <i>Current Opinion in Cell Biology</i> , 2013, 25, 512-519.	5.4	79
22	Somatodendritic Expression of JAM2 Inhibits Oligodendrocyte Myelination. <i>Neuron</i> , 2016, 91, 824-836.	8.1	79
23	Myelinated axon physiology and regulation of neural circuit function. <i>Glia</i> , 2019, 67, 2050-2062.	4.9	79
24	Endothelin signalling mediates experience-dependent myelination in the CNS. <i>ELife</i> , 2019, 8, .	6.0	64
25	Adaptive myelination from fish to man. <i>Brain Research</i> , 2016, 1641, 149-161.	2.2	58
26	Dissecting Mechanisms of Myelinated Axon Formation Using Zebrafish. <i>Methods in Cell Biology</i> , 2011, 105, 25-62.	1.1	54
27	New oligodendrocytes exhibit more abundant and accurate myelin regeneration than those that survive demyelination. <i>Nature Neuroscience</i> , 2022, 25, 415-420.	14.8	54
28	TET1-mediated DNA hydroxymethylation regulates adult remyelination in mice. <i>Nature Communications</i> , 2021, 12, 3359.	12.8	47
29	nsf Is Essential for Organization of Myelinated Axons in Zebrafish. <i>Current Biology</i> , 2006, 16, 636-648.	3.9	45
30	Calcium Signaling in the Oligodendrocyte Lineage: Regulators and Consequences. <i>Annual Review of Neuroscience</i> , 2020, 43, 163-186.	10.7	45
31	Drug discovery for remyelination and treatment of MS. <i>Glia</i> , 2017, 65, 1565-1589.	4.9	41
32	Myelinating Schwann cells ensheath multiple axons in the absence of E3 ligase component Fbxw7. <i>Nature Communications</i> , 2019, 10, 2976.	12.8	39
33	ErbB signaling has a role in radial sorting independent of Schwann cell number. <i>Glia</i> , 2011, 59, 1047-1055.	4.9	38
34	Myelination of Neuronal Cell Bodies when Myelin Supply Exceeds Axonal Demand. <i>Current Biology</i> , 2018, 28, 1296-1305.e5.	3.9	38
35	CRISPR gRNA phenotypic screening in zebrafish reveals pro-regenerative genes in spinal cord injury. <i>PLoS Genetics</i> , 2021, 17, e1009515.	3.5	36
36	Oligodendrocyte Neurofascin Independently Regulates Both Myelin Targeting and Sheath Growth in the CNS. <i>Developmental Cell</i> , 2019, 51, 730-744.e6.	7.0	35

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37	iPSC-derived myelinoids to study myelin biology of humans. <i>Developmental Cell</i> , 2021, 56, 1346-1358.e6.	7.0	34
38	Axonal Regulation of Central Nervous System Myelination: Structure and Function. <i>Neuroscientist</i> , 2018, 24, 7-21.	3.5	32
39	Myelination induces axonal hotspots of synaptic vesicle fusion that promote sheath growth. <i>Current Biology</i> , 2021, 31, 3743-3754.e5.	3.9	32
40	Oligodendrocyte Development in the Absence of Their Target Axons In Vivo. <i>PLoS ONE</i> , 2016, 11, e0164432.	2.5	30
41	Regeneration of myelin sheaths of normal length and thickness in the zebrafish CNS correlates with growth of axons in caliber. <i>PLoS ONE</i> , 2017, 12, e0178058.	2.5	28
42	Imaging Myelination In Vivo Using Transparent Animal Models. <i>Brain Plasticity</i> , 2016, 2, 3-29.	3.5	25
43	Light sheet microscopy with acoustic sample confinement. <i>Nature Communications</i> , 2019, 10, 669.	12.8	25
44	Oligodendrocyte HCN2 Channels Regulate Myelin Sheath Length. <i>Journal of Neuroscience</i> , 2021, 41, 7954-7964.	3.6	20
45	Neuronal activity disrupts myelinated axon integrity in the absence of NKCC1b. <i>Journal of Cell Biology</i> , 2020, 219, .	5.2	18
46	Forward Genetic Screen Using Zebrafish to Identify New Genes Involved in Myelination. <i>Methods in Molecular Biology</i> , 2019, 1936, 185-209.	0.9	9
47	Clusters of neuronal neurofascin prefigure the position of a subset of nodes of Ranvier along individual central nervous system axons in vivo. <i>Cell Reports</i> , 2022, 38, 110366.	6.4	7
48	A Drug-Inducible Transgenic Zebrafish Model for Myelinating Glial Cell Ablation. <i>Methods in Molecular Biology</i> , 2019, 1936, 227-238.	0.9	6
49	PTPN21/Pez Is a Novel and Evolutionarily Conserved Key Regulator of Inflammation In vivo. <i>Current Biology</i> , 2021, 31, 875-883.e5.	3.9	5
50	Insights Into Central Nervous System Glial Cell Formation and Function From Zebrafish. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 754606.	3.7	5
51	Targeting Mechanisms in Myelinated Axons: Not All Nodes Are Created Equal. <i>Developmental Cell</i> , 2012, 22, 7-9.	7.0	4
52	Axonal Domains: Role for Paranodal Junction in Node of Ranvier Assembly. <i>Current Biology</i> , 2008, 18, R876-R879.	3.9	2
53	Manipulating Neuronal Activity in the Developing Zebrafish Spinal Cord to Investigate Adaptive Myelination. <i>Methods in Molecular Biology</i> , 2019, 1936, 211-225.	0.9	1