Andy Y Shih

List of Publications by Year
in descending order

64 papers	6,625 citations	109321 35 h-index	110387 64 g-index
78 all docs	78 docs citations	78 times ranked	7433 citing authors

#	Article	IF	Citations
1	Coordinate Regulation of Glutathione Biosynthesis and Release by Nrf2-Expressing Glia Potently Protects Neurons from Oxidative Stress. Journal of Neuroscience, 2003, 23, 3394-3406.	3.6	684
2	Two-Photon Microscopy as a Tool to Study Blood Flow and Neurovascular Coupling in the Rodent Brain. Journal of Cerebral Blood Flow and Metabolism, 2012, 32, 1277-1309.	4.3	405
3	A Small-Molecule-Inducible Nrf2-Mediated Antioxidant Response Provides Effective Prophylaxis against Cerebral IschemiaIn Vivo. Journal of Neuroscience, 2005, 25, 10321-10335.	3.6	395
4	Chronic optical access through a polished and reinforced thinned skull. Nature Methods, 2010, 7, 981-984.	19.0	382
5	The smallest stroke: occlusion of one penetrating vessel leads to infarction and a cognitive deficit. Nature Neuroscience, 2013, 16, 55-63.	14.8	284
6	NF-E2-related Factor-2 Mediates Neuroprotection against Mitochondrial Complex I Inhibitors and Increased Concentrations of Intracellular Calcium in Primary Cortical Neurons. Journal of Biological Chemistry, 2003, 278, 37948-37956.	3.4	279
7	Cystine/Glutamate Exchange Modulates Glutathione Supply for Neuroprotection from Oxidative Stress and Cell Proliferation. Journal of Neuroscience, 2006, 26, 10514-10523.	3.6	269
8	Fluctuating and sensory-induced vasodynamics in rodent cortex extend arteriole capacity. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 8473-8478.	7.1	257
9	Pericyte structure and distribution in the cerebral cortex revealed by high-resolution imaging of transgenic mice. Neurophotonics, 2015, 2, 041402.	3.3	241
10	Induction of the Nrf2-driven Antioxidant Response Confers Neuroprotection during Mitochondrial Stress in Vivo. Journal of Biological Chemistry, 2005, 280, 22925-22936.	3.4	237
11	Entrainment of Arteriole Vasomotor Fluctuations by Neural Activity Is a Basis of Blood-Oxygenation-Level-Dependent â€œResting-Stateâ€•Connectivity. Neuron, 2017, 96, 936-948.e3.	8.1	233
12	Detection, risk factors, and functional consequences of cerebral microinfarcts. Lancet Neurology, The, 2017, 16, 730-740.	10.2	225
13	Brain capillary pericytes exert a substantial but slow influence on blood flow. Nature Neuroscience, 2021, 24, 633-645.	14.8	195
14	Organizational hierarchy and structural diversity of microvascular pericytes in adult mouse cortex. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 411-425.	4.3	175
15	Topological basis for the robust distribution of blood to rodent neocortex. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 12670-12675.	7.1	158
16	Dynamic Remodeling of Pericytes InÂVivo Maintains Capillary Coverage in the Adult Mouse Brain. Cell Reports, 2018, 22, 8-16.	6.4	152
17	Pericytes as Inducers of Rapid, Matrix Metalloproteinase-9-Dependent Capillary Damage during Ischemia. Journal of Neuroscience, 2017, 37, 129-140.	3.6	143
18	Rapid determination of particle velocity from space-time images using the Radon transform. Journal of Computational Neuroscience, 2010, 29, 5-11.	1.0	129

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19	Active Dilation of Penetrating Arterioles Restores Red Blood Cell Flux to Penumbral Neocortex after Focal Stroke. Journal of Cerebral Blood Flow and Metabolism, 2009, 29, 738-751.	4.3	125
20	A Polished and Reinforced Thinned-skull Window for Long-term Imaging of the Mouse Brain. Journal of Visualized Experiments, 2012, , .	0.3	104
21	Pericyte Control of Blood Flow Across Microvascular Zones in the Central Nervous System. Annual Review of Physiology, 2022, 84, 331-354.	13.1	86
22	Functional deficits induced by cortical microinfarcts. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 3599-3614.	4.3	84
23	Postnatal development of cerebrovascular structure and the neurogliovascular unit. Wiley Interdisciplinary Reviews: Developmental Biology, 2020, 9, e363.	5.9	84
24	The glial cell response is an essential component of hypoxia-induced erythropoiesis in mice. Journal of Clinical Investigation, 2009, 119, 3373-83.	8.2	82
25	Two-photon Imaging of Glutathione Levels in Intact Brain Indicates Enhanced Redox Buffering in Developing Neurons and Cells at the Cerebrospinal Fluid and Blood-Brain Interface. Journal of Biological Chemistry, 2006, 281, 17420-17431.	3.4	79
26	Robust and Fragile Aspects of Cortical Blood Flow in Relation to the Underlying Angioarchitecture. Microcirculation, 2015, 22, 204-218.	1.8	78
27	Pericyte Structural Remodeling in Cerebrovascular Health and Homeostasis. Frontiers in Aging Neuroscience, 2018, 10, 210.	3.4	77
28	A Guide to Delineate the Logic of Neurovascular Signaling in the Brain. Frontiers in Neuroenergetics, 2011, 3, 1.	5.3	71
29	Acute Vascular Disruption and Aquaporin 4 Loss After Stroke. Stroke, 2009, 40, 2182-2190.	2.0	62
30	Automatic Identification of Fluorescently Labeled Brain Cells for Rapid Functional Imaging. Journal of Neurophysiology, 2010, 104, 1803-1811.	1.8	53
31	Dopamine activates Nrf2-regulated neuroprotective pathways in astrocytes and meningeal cells. Journal of Neurochemistry, 2006, 101, 109-119.	3.9	48
32	Imaging the construction of capillary networks in the neonatal mouse brain. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	48
33	Microvascular basis for growth of small infarcts following occlusion of single penetrating arterioles in mouse cortex. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 1357-1373.	4.3	47
34	xCT Cystine Transporter Expression in HEK293 Cells: Pharmacology and Localization. Biochemical and Biophysical Research Communications, 2001, 282, 1132-1137.	2.1	44
35	Does pathology of small venules contribute to cerebral microinfarcts and dementia?. Journal of Neurochemistry, 2018, 144, 517-526.	3.9	44
36	Policing the Police: Astrocytes Modulate Microglial Activation. Journal of Neuroscience, 2006, 26, 3887-3888.	3.6	40

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37	Structural plasticity of the ventral stream and aphasia recovery. Annals of Neurology, 2017, 82, 147-151.	5.3	40
38	A Murine Toolbox for Imaging the Neurovascular Unit. Microcirculation, 2015, 22, 168-182.	1.8	39
39	Rodent Models of Cerebral Microinfarct and Microhemorrhage. Stroke, 2018, 49, 803-810.	2.0	37
40	Photon counting, censor corrections, and lifetime imaging for improved detection in two-photon microscopy. Journal of Neurophysiology, 2011, 105, 3106-3113.	1.8	35
41	Multiphotonâ€Guided Creation of Complex Organâ€Specific Microvasculature. Advanced Healthcare Materials, 2021, 10, e2100031.	7.6	34
42	Three-dimensional ultrastructure of the brain pericyte-endothelial interface. Journal of Cerebral Blood Flow and Metabolism, 2021, 41, 2185-2200.	4.3	34
43	VasoMetrics: unbiased spatiotemporal analysis of microvascular diameter in multi-photon imaging applications. Quantitative Imaging in Medicine and Surgery, 2020, 11, 969-982.	2.0	34
44	Distinct features of brain perivascular fibroblasts and mural cells revealed by in vivo two-photon imaging. Journal of Cerebral Blood Flow and Metabolism, 2022, 42, 966-978.	4.3	33
45	Mild pericyte deficiency is associated with aberrant brain microvascular flow in aged PDGFRÎ²^{+/â^'} mice. Journal of Cerebral Blood Flow and Metabolism, 2020, 40, 2387-2400.	4.3	28
46	Higher prevalence of spontaneous cerebral vasculopathy and cerebral infarcts in a mouse model of sickle cell disease. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 342-351.	4.3	27
47	Endothelial Nitric Oxide Synthaseâ€"Deficient Mice. American Journal of Pathology, 2021, 191, 1932-1945.	3.8	22
48	Nrf2 gene deletion fails to alter psychostimulant-induced behavior or neurotoxicity. Brain Research, 2007, 1127, 26-35.	2.2	17
49	Pericytes as Inducers of Rapid, Matrix Metalloproteinase-9-Dependent Capillary Damage during Ischemia. Journal of Neuroscience, 2017, 37, 129-140.	3.6	16
50	Public Volume Electron Microscopy Data: An Essential Resource to Study the Brain Microvasculature. Frontiers in Cell and Developmental Biology, 2022, 10, 849469.	3.7	15
51	Combining serial block face and focused ion beam scanning electron microscopy for 3D studies of rare events. Methods in Cell Biology, 2019, 152, 87-101.	1.1	12
52	InÂvivo two-photon imaging of neuronal and brain vascular responses in mice chronically exposed to ethanol. Alcohol, 2020, 85, 41-47.	1.7	11
53	Targeted Occlusion of Individual Pial Vessels of Mouse Cortex. Bio-protocol, 2013, 3, .	0.4	9
54	Photothrombotic Induction of Capillary Ischemia in the Mouse Cortex during in vivo Two-Photon Imaging. Bio-protocol, 2017, 7, .	0.4	8

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55	Brain capillary obstruction during neurotoxicity in a mouse model of anti-CD19 chimeric antigen receptor T-cell therapy. Brain Communications, 2022, 4, fcab309.	3.3	8
56	Sharpening the tools for pericyte research. Nature Neuroscience, 2019, 22, 1041-1043.	14.8	7
57	Antibody-based in vivo leukocyte label for two-photon brain imaging in mice. Neurophotonics, 2022, 9, .	3.3	5
58	Rapid, Nitric Oxide Synthesis-Dependent Activation of MMP-9 at Pericyte Somata During Capillary Ischemia in vivo. Frontiers in Physiology, 2020, 11, 619230.	2.8	4
59	Reinforced thinned-skull window for repeated imaging of the neonatal mouse brain. Neurophotonics, 2022, 9, .	3.3	4
60	Optogenetic stimulation of pericytes lacking alpha smooth muscle actin produces a decrease in capillary blood flow in the living mouse brain. FASEB Journal, 2018, 32, 708.1.	0.5	3
61	In vivo Single Cell Optical Ablation of Brain Pericytes. Frontiers in Neuroscience, 2022, 16, .	2.8	3
62	In vivo Optical Imaging and Manipulation of Pericytes in the Mouse Brain. , 2017, , .		2
63	In Vivo Optical Imaging and Manipulation of Brain Pericytes. Pancreatic Islet Biology, 2021, , 1-37.	0.3	1
64	Expanding the horizon of research into theÂpathogenesis of the white matter diseases: Proceedings of the 2021 Annual Workshop of the Albert Research Institute for White Matter and Cognition. GeroScience, 2022, 44, 25-37.	4.6	1