

Axel Montagne

List of Publications by Year in descending order

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62
papers

9,733
citations

126907

33
h-index

149698

56
g-index

69
all docs

69
docs citations

69
times ranked

11346
citing authors

#	ARTICLE	IF	CITATIONS
1	Blood-Brain Barrier Breakdown in the Aging Human Hippocampus. <i>Neuron</i> , 2015, 85, 296-302.	8.1	1,436
2	Blood-Brain Barrier: From Physiology to Disease and Back. <i>Physiological Reviews</i> , 2019, 99, 21-78.	28.8	1,232
3	Blood-brain barrier breakdown is an early biomarker of human cognitive dysfunction. <i>Nature Medicine</i> , 2019, 25, 270-276.	30.7	987
4	Cerebral blood flow regulation and neurovascular dysfunction in Alzheimer disease. <i>Nature Reviews Neuroscience</i> , 2017, 18, 419-434.	10.2	842
5	APOE4 leads to blood-brain barrier dysfunction predicting cognitive decline. <i>Nature</i> , 2020, 581, 71-76.	27.8	705
6	The role of brain vasculature in neurodegenerative disorders. <i>Nature Neuroscience</i> , 2018, 21, 1318-1331.	14.8	612
7	Alzheimer's disease: A matter of blood-brain barrier dysfunction?. <i>Journal of Experimental Medicine</i> , 2017, 214, 3151-3169.	8.5	467
8	Vascular dysfunction—The disregarded partner of Alzheimer's disease. <i>Alzheimer's and Dementia</i> , 2019, 15, 158-167.	0.8	454
9	Perivascular spaces in the brain: anatomy, physiology and pathology. <i>Nature Reviews Neurology</i> , 2020, 16, 137-153.	10.1	405
10	Pericyte loss leads to circulatory failure and pleiotrophin depletion causing neuron loss. <i>Nature Neuroscience</i> , 2019, 22, 1089-1098.	14.8	246
11	Brain imaging of neurovascular dysfunction in Alzheimer's disease. <i>Acta Neuropathologica</i> , 2016, 131, 687-707.	7.7	160
12	Impact of Tissue Plasminogen Activator on the Neurovascular Unit: From Clinical Data to Experimental Evidence. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2011, 31, 2119-2134.	4.3	96
13	Ultra-Sensitive Molecular MRI of Vascular Cell Adhesion Molecule-1 Reveals a Dynamic Inflammatory Penumbra After Strokes. <i>Stroke</i> , 2013, 44, 1988-1996.	2.0	92
14	Cranial Suture Regeneration Mitigates Skull and Neurocognitive Defects in Craniosynostosis. <i>Cell</i> , 2021, 184, 243-256.e18.	28.9	88
15	Optimal acquisition and modeling parameters for accurate assessment of low K_{trans} blood-brain barrier permeability using dynamic contrast-enhanced MRI. <i>Magnetic Resonance in Medicine</i> , 2016, 75, 1967-1977.	3.0	87
16	Regional early and progressive loss of brain pericytes but not vascular smooth muscle cells in adult mice with disrupted platelet-derived growth factor receptor- β signaling. <i>PLoS ONE</i> , 2017, 12, e0176225.	2.5	85
17	Alzheimer's pathogenic mechanisms and underlying sex difference. <i>Cellular and Molecular Life Sciences</i> , 2021, 78, 4907-4920.	5.4	82
18	Blood-Brain Barrier Permeability and Gadolinium. <i>JAMA Neurology</i> , 2016, 73, 13.	9.0	77

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19	APOE4 accelerates advanced-stage vascular and neurodegenerative disorder in old Alzheimer's mice via cyclophilin A independently of amyloid- β . <i>Nature Aging</i> , 2021, 1, 506-520.	11.6	77
20	Tissue plasminogen activator prevents white matter damage following stroke. <i>Journal of Experimental Medicine</i> , 2011, 208, 1229-1242.	8.5	72
21	Glutamate Controls tPA Recycling by Astrocytes, Which in Turn Influences Glutamatergic Signals. <i>Journal of Neuroscience</i> , 2012, 32, 5186-5199.	3.6	67
22	Molecular magnetic resonance imaging of brain-immune interactions. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 389.	3.7	65
23	Ultra-sensitive molecular MRI of cerebrovascular cell activation enables early detection of chronic central nervous system disorders. <i>NeuroImage</i> , 2012, 63, 760-770.	4.2	64
24	GpIb-VWF blockade restores vessel patency by dissolving platelet aggregates formed under very high shear rate in mice. <i>Blood</i> , 2014, 123, 3354-3363.	1.4	64
25	ROCKETSHIP: a flexible and modular software tool for the planning, processing and analysis of dynamic MRI studies. <i>BMC Medical Imaging</i> , 2015, 15, 19.	2.7	63
26	Unveiling an exceptional zymogen: the single-chain form of tPA is a selective activator of NMDA receptor-dependent signaling and neurotoxicity. <i>Cell Death and Differentiation</i> , 2012, 19, 1983-1991.	11.2	60
27	Endothelial LRP1 protects against neurodegeneration by blocking cyclophilin A. <i>Journal of Experimental Medicine</i> , 2021, 218, .	8.5	59
28	NR2D-containing NMDA receptors mediate tissue plasminogen activator-promoted neuronal excitotoxicity. <i>Cell Death and Differentiation</i> , 2010, 17, 860-871.	11.2	51
29	Interplay between Brain Pericytes and Endothelial Cells in Dementia. <i>American Journal of Pathology</i> , 2021, 191, 1917-1931.	3.8	46
30	Urokinase versus Alteplase for intraventricular hemorrhage fibrinolysis. <i>Neuropharmacology</i> , 2014, 85, 158-165.	4.1	45
31	Blood-brain barrier link to human cognitive impairment and Alzheimer's disease. , 2022, 1, 108-115.		45
32	A novel sensitive assay for detection of a biomarker of pericyte injury in cerebrospinal fluid. <i>Alzheimer's and Dementia</i> , 2020, 16, 821-830.	0.8	43
33	Tissue Plasminogen Activator Expression Is Restricted to Subsets of Excitatory Pyramidal Glutamatergic Neurons. <i>Molecular Neurobiology</i> , 2016, 53, 5000-5012.	4.0	36
34	Magnetic Resonance Imaging of Blood-brain Barrier permeability in Dementia. <i>Neuroscience</i> , 2021, 474, 14-29.	2.3	35
35	Selective inhibition of GluN2D-containing N-methyl-D-aspartate receptors prevents tissue plasminogen activator-promoted neurotoxicity both in vitro and in vivo. <i>Molecular Neurodegeneration</i> , 2011, 6, 68.	10.8	33
36	Memantine Improves Safety of Thrombolysis for Stroke. <i>Stroke</i> , 2012, 43, 2774-2781.	2.0	32

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37	Vascular Plasticity and Cognition During Normal Aging and Dementia. <i>JAMA Neurology</i> , 2015, 72, 495.	9.0	30
38	Comparison Between Blood-Brain Barrier Water Exchange Rate and Permeability to Gadolinium-Based Contrast Agent in an Elderly Cohort. <i>Frontiers in Neuroscience</i> , 2020, 14, 571480.	2.8	30
39	Permeability imaging as a predictor of delayed cerebral ischemia after aneurysmal subarachnoid hemorrhage. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2018, 38, 973-979.	4.3	24
40	Undetectable gadolinium brain retention in individuals with an age-dependent blood-brain barrier breakdown in the hippocampus and mild cognitive impairment. <i>Alzheimer's and Dementia</i> , 2019, 15, 1568-1575.	0.8	22
41	Air Pollution Particulate Matter Exposure and Chronic Cerebral Hypoperfusion and Measures of White Matter Injury in a Murine Model. <i>Environmental Health Perspectives</i> , 2021, 129, 87006.	6.0	22
42	A Review of Translational Magnetic Resonance Imaging in Human and Rodent Experimental Models of Small Vessel Disease. <i>Translational Stroke Research</i> , 2021, 12, 15-30.	4.2	18
43	New Mechanistic Insights, Novel Treatment Paradigms, and Clinical Progress in Cerebrovascular Diseases. <i>Frontiers in Aging Neuroscience</i> , 2021, 13, 623751.	3.4	17
44	Imaging subtle leaks in the blood-brain barrier in the aging human brain: potential pitfalls, challenges, and possible solutions. <i>GeroScience</i> , 2022, 44, 1339-1351.	4.6	17
45	Immunotherapy blocking the tissue plasminogen activator-dependent activation of N-methyl-d-aspartate glutamate receptors improves hemorrhagic stroke outcome. <i>Neuropharmacology</i> , 2013, 67, 267-271.	4.1	16
46	<i>APOE4</i> Accelerates Development of Dementia After Stroke. <i>Stroke</i> , 2020, 51, 699-700.	2.0	16
47	Intracerebral Hematomas Disappear on T2*-Weighted Images During Normobaric Oxygen Therapy. <i>Stroke</i> , 2013, 44, 3482-3489.	2.0	15
48	Prenatal disruption of blood-brain barrier formation via cyclooxygenase activation leads to lifelong brain inflammation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2113310119.	7.1	15
49	Air Pollution Particulate Matter Amplifies White Matter Vascular Pathology and Demyelination Caused by Hypoperfusion. <i>Frontiers in Immunology</i> , 2021, 12, 785519.	4.8	14
50	Evidence that blood-CSF barrier transport, but not inflammatory biomarkers, change in migraine, while CSF sVCAM1 associates with migraine frequency and CSF fibrinogen. <i>Headache</i> , 2021, 61, 536-545.	3.9	13
51	Protection of ischemic white matter and oligodendrocytes in mice by 3K3A-activated protein C. <i>Journal of Experimental Medicine</i> , 2022, 219, .	8.5	12
52	Impact of Alcohol Consumption on the Outcome of Ischemic Stroke and Thrombolysis. <i>Stroke</i> , 2015, 46, 1641-1650.	2.0	11
53	7T multi-shell hybrid diffusion imaging (HYDI) for mapping brain connectivity in mice. <i>Proceedings of SPIE</i> , 2015, 9413, .	0.8	9
54	<i>Atp13a5</i> Marker Reveals Pericytes of the Central Nervous System in Mice. <i>SSRN Electronic Journal</i> , 0, , .	0.4	4

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55	Reconstruction of major fibers using 7T multi-shell Hybrid Diffusion Imaging in mice. Proceedings of SPIE, 2015, , .	0.8	0
56	Abstract P750: 3K3A-APC Restores Oligodendrocyte Pools in Models of White Matter Stroke via PAR1 Signaling. Stroke, 2021, 52, .	2.0	0
57	Abstract WP90: Activate Protein C Analog Protects Ischemic Injury of Subcortical White Matter in Mice. Stroke, 2018, 49, .	2.0	0
58	Abstract WP139: MRI Evaluation and Functional Assessment of Brain Injury Improvement After 3K3A-Activated Protein C Treatment for Murine White Matter Stroke. Stroke, 2019, 50, .	2.0	0
59	Abstract WP134: 3K3A-APC Protects Pericyte-deficient Mice From Ischemic Brain Injury. Stroke, 2020, 51, .	2.0	0
60	Abstract TMP27: Par1 Mediates Protective Effect of 3K3K-APC After White Matter Stroke in Mice. Stroke, 2020, 51, .	2.0	0
61	The relationship between bloodâ€brain barrier permeability and cerebral blood flow in cognitive impairment. Alzheimer's and Dementia, 2021, 17, .	0.8	0
62	Editorial: Multifaceted Interactions Between Immunity and the Diseased Brain. Frontiers in Cellular Neuroscience, 0, 16, .	3.7	0