

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	Protection of ischemic white matter and oligodendrocytes in mice by 3K3A-activated protein C. Journal of Experimental Medicine, 2022, 219, .	8.5	12
2	Bloodâ€“brain barrier link to human cognitive impairment and Alzheimerâ€™s disease. , 2022, 1, 108-115.		45
3	Prenatal disruption of bloodâ€“brain barrier formation via cyclooxygenase activation leads to lifelong brain inflammation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2113310119.	7.1	15
4	Imaging subtle leaks in the bloodâ€“brain barrier in the aging human brain: potential pitfalls, challenges, and possible solutions. GeroScience, 2022, 44, 1339-1351.	4.6	17
5	A Review of Translational Magnetic Resonance Imaging in Human and Rodent Experimental Models of Small Vessel Disease. Translational Stroke Research, 2021, 12, 15-30.	4.2	18
6	Cranial Suture Regeneration Mitigates Skull and Neurocognitive Defects in Craniosynostosis. Cell, 2021, 184, 243-256.e18.	28.9	88
7	Endothelial LRP1 protects against neurodegeneration by blocking cyclophilin A. Journal of Experimental Medicine, 2021, 218, .	8.5	59
8	Evidence that bloodâ€“CSF barrier transport, but not inflammatory biomarkers, change in migraine, while CSF sVCAM1 associates with migraine frequency and CSF fibrinogen. Headache, 2021, 61, 536-545.	3.9	13
9	Abstract P750: 3K3A-APC Restores Oligodendrocyte Pools in Models of White Matter Stroke via PAR1 Signaling. Stroke, 2021, 52, .	2.0	0
10	Alzheimerâ€™s pathogenic mechanisms and underlying sex difference. Cellular and Molecular Life Sciences, 2021, 78, 4907-4920.	5.4	82
11	APOE4 accelerates advanced-stage vascular and neurodegenerative disorder in old Alzheimerâ€™s mice via cyclophilin A independently of amyloid-Î². Nature Aging, 2021, 1, 506-520.	11.6	77
12	Interplay between Brain Pericytes and Endothelial Cells in Dementia. American Journal of Pathology, 2021, 191, 1917-1931.	3.8	46
13	Air Pollution Particulate Matter Exposure and Chronic Cerebral Hypoperfusion and Measures of White Matter Injury in a Murine Model. Environmental Health Perspectives, 2021, 129, 87006.	6.0	22
14	Magnetic Resonance Imaging of Bloodâ€“Brain Barrier permeability in Dementia. Neuroscience, 2021, 474, 14-29.	2.3	35
15	New Mechanistic Insights, Novel Treatment Paradigms, and Clinical Progress in Cerebrovascular Diseases. Frontiers in Aging Neuroscience, 2021, 13, 623751.	3.4	17
16	Air Pollution Particulate Matter Amplifies White Matter Vascular Pathology and Demyelination Caused by Hypoperfusion. Frontiers in Immunology, 2021, 12, 785519.	4.8	14
17	The relationship between bloodâ€“brain barrier permeability and cerebral blood flow in cognitive impairment. Alzheimer's and Dementia, 2021, 17, .	0.8	0
18	Comparison Between Blood-Brain Barrier Water Exchange Rate and Permeability to Gadolinium-Based Contrast Agent in an Elderly Cohort. Frontiers in Neuroscience, 2020, 14, 571480.	2.8	30

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19	<i>APOE4 Accelerates Development of Dementia After Stroke. Stroke, 2020, 51, 699-700.</i>	2.0	16
20	<i>Perivascular spaces in the brain: anatomy, physiology and pathology. Nature Reviews Neurology, 2020, 16, 137-153.</i>	10.1	405
21	<i>APOE4 leads to blood-brain barrier dysfunction predicting cognitive decline. Nature, 2020, 581, 71-76.</i>	27.8	705
22	<i>A novel sensitive assay for detection of a biomarker of pericyte injury in cerebrospinal fluid. Alzheimer's and Dementia, 2020, 16, 821-830.</i>	0.8	43
23	<i>Abstract WP134: 3K3A-APC Protects Pericyte-deficient Mice From Ischemic Brain Injury. Stroke, 2020, 51, .</i>	2.0	0
24	<i>Abstract TMP27: Par1 Mediates Protective Effect of 3K3K-APC After White Matter Stroke in Mice. Stroke, 2020, 51, .</i>	2.0	0
25	<i>Pericyte loss leads to circulatory failure and pleiotrophin depletion causing neuron loss. Nature Neuroscience, 2019, 22, 1089-1098.</i>	14.8	246
26	<i>Undetectable gadolinium brain retention in individuals with an age-dependent blood-brain barrier breakdown in the hippocampus and mild cognitive impairment. Alzheimer's and Dementia, 2019, 15, 1568-1575.</i>	0.8	22
27	<i>Vascular dysfunction—The disregarded partner of Alzheimer's disease. Alzheimer's and Dementia, 2019, 15, 158-167.</i>	0.8	454
28	<i>Blood-brain barrier breakdown is an early biomarker of human cognitive dysfunction. Nature Medicine, 2019, 25, 270-276.</i>	30.7	987
29	<i>Blood-Brain Barrier: From Physiology to Disease and Back. Physiological Reviews, 2019, 99, 21-78.</i>	28.8	1,232
30	<i>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, .</i>	2.0	0
31	<i>Permeability imaging as a predictor of delayed cerebral ischemia after aneurysmal subarachnoid hemorrhage. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 973-979.</i>	4.3	24
32	<i>The role of brain vasculature in neurodegenerative disorders. Nature Neuroscience, 2018, 21, 1318-1331.</i>	14.8	612
33	<i>Abstract WP90: Activate Protein C Analog Protects Ischemic Injury of Subcortical White Matter in Mice. Stroke, 2018, 49, .</i>	2.0	0
34	<i>Cerebral blood flow regulation and neurovascular dysfunction in Alzheimer disease. Nature Reviews Neuroscience, 2017, 18, 419-434.</i>	10.2	842
35	<i>Alzheimer's disease: A matter of blood-brain barrier dysfunction?. Journal of Experimental Medicine, 2017, 214, 3151-3169.</i>	8.5	467
36	<i>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. PLoS ONE, 2017, 12, e0176225.</i>	2.5	85

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37	Brain imaging of neurovascular dysfunction in Alzheimer's disease. <i>Acta Neuropathologica</i> , 2016, 131, 687-707.	7.7	160
38	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
39	Tissue Plasminogen Activator Expression Is Restricted to Subsets of Excitatory Pyramidal Glutamatergic Neurons. <i>Molecular Neurobiology</i> , 2016, 53, 5000-5012.	4.0	36
40	Blood-Brain Barrier Permeability and Gadolinium. <i>JAMA Neurology</i> , 2016, 73, 13.	9.0	77
41	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
42	Reconstruction of major fibers using 7T multi-shell Hybrid Diffusion Imaging in mice. <i>Proceedings of SPIE</i> , 2015, , .	0.8	0
43	7T multi-shell hybrid diffusion imaging (HYDI) for mapping brain connectivity in mice. <i>Proceedings of SPIE</i> , 2015, 9413, .	0.8	9
44	Blood-Brain Barrier Breakdown in the Aging Human Hippocampus. <i>Neuron</i> , 2015, 85, 296-302.	8.1	1,436
45	Impact of Alcohol Consumption on the Outcome of Ischemic Stroke and Thrombolysis. <i>Stroke</i> , 2015, 46, 1641-1650.	2.0	11
46	Vascular Plasticity and Cognition During Normal Aging and Dementia. <i>JAMA Neurology</i> , 2015, 72, 495.	9.0	30
47	Urokinase versus Alteplase for intraventricular hemorrhage fibrinolysis. <i>Neuropharmacology</i> , 2014, 85, 158-165.	4.1	45
48	Molecular magnetic resonance imaging of brain-immune interactions. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 389.	3.7	65
49	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
50	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
51	Intracerebral Hematomas Disappear on T2*-Weighted Images During Normobaric Oxygen Therapy. <i>Stroke</i> , 2013, 44, 3482-3489.	2.0	15
52	Ultra-Sensitive Molecular MRI of Vascular Cell Adhesion Molecule-1 Reveals a Dynamic Inflammatory Penumbral After Strokes. <i>Stroke</i> , 2013, 44, 1988-1996.	2.0	92
53	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
54	Memantine Improves Safety of Thrombolysis for Stroke. <i>Stroke</i> , 2012, 43, 2774-2781.	2.0	32

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55	Glutamate Controls tPA Recycling by Astrocytes, Which in Turn Influences Glutamatergic Signals. Journal of Neuroscience, 2012, 32, 5186-5199.	3.6	67
56	Ultra-sensitive molecular MRI of cerebrovascular cell activation enables early detection of chronic central nervous system disorders. NeuroImage, 2012, 63, 760-770.	4.2	64
57	Selective inhibition of GluN2D-containing N-methyl-D-aspartate receptors prevents tissue plasminogen activator-promoted neurotoxicity both in vitro and in vivo. Molecular Neurodegeneration, 2011, 6, 68.	10.8	33
58	Tissue plasminogen activator prevents white matter damage following stroke. Journal of Experimental Medicine, 2011, 208, 1229-1242.	8.5	72
59	Impact of Tissue Plasminogen Activator on the Neurovascular Unit: From Clinical Data to Experimental Evidence. Journal of Cerebral Blood Flow and Metabolism, 2011, 31, 2119-2134.	4.3	96
60	NR2D-containing NMDA receptors mediate tissue plasminogen activator-promoted neuronal excitotoxicity. Cell Death and Differentiation, 2010, 17, 860-871.	11.2	51
61	<i>Atp13a5</i> Marker Reveals Pericytes of the Central Nervous System in Mice. SSRN Electronic Journal, 0, , .	0.4	4
62	Editorial: Multifaceted Interactions Between Immunity and the Diseased Brain. Frontiers in Cellular Neuroscience, 0, 16, .	3.7	0