Isabelle Aubert

List of Publications by Year
in descending order

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86 papers	5,506 citations	117571 34 h-index	85498 71 g-index
89 all docs	89 docs citations	89 times ranked	5036 citing authors

#	Article	IF	Citations
1	Bloodâ€“brain barrier opening in Alzheimerâ€™s disease using MR-guided focused ultrasound. Nature Communications, 2018, 9, 2336.	5.8	618
2	Apolipoprotein E4 allele as a predictor of cholinergic deficits and treatment outcome in Alzheimer disease.. Proceedings of the National Academy of Sciences of the United States of America, 1995, 92, 12260-12264.	3.3	579
3	Antibodies Targeted to the Brain with Image-Guided Focused Ultrasound Reduces Amyloid-Î² Plaque Load in the TgCRND8 Mouse Model of Alzheimer's Disease. PLoS ONE, 2010, 5, e10549.	1.1	319
4	Comparative Alterations of Nicotinic and Muscarinic Binding Sites in Alzheimer's and Parkinson's Diseases. Journal of Neurochemistry, 1992, 58, 529-541.	2.1	316
5	First-in-human trial of bloodâ€“brain barrier opening in amyotrophic lateral sclerosis using MR-guided focused ultrasound. Nature Communications, 2019, 10, 4373.	5.8	312
6	Amyloid-Î² plaque reduction, endogenous antibody delivery and glial activation by brain-targeted, transcranial focused ultrasound. Experimental Neurology, 2013, 248, 16-29.	2.0	265
7	Targeted Delivery of Neural Stem Cells to the Brain Using MRI-Guided Focused Ultrasound to Disrupt the Blood-Brain Barrier. PLoS ONE, 2011, 6, e27877.	1.1	234
8	Alzheimer Disease in a Mouse Model: MR Imagingâ€“guided Focused Ultrasound Targeted to the Hippocampus Opens the Blood-Brain Barrier and Improves Pathologic Abnormalities and Behavior. Radiology, 2014, 273, 736-745.	3.6	226
9	Facilitation of acetylcholine release and cognitive performance by an M(2)-muscarinic receptor antagonist in aged memory-impaired. Journal of Neuroscience, 1995, 15, 1455-1462.	1.7	206
10	Targeted Delivery of Self-Complementary Adeno-Associated Virus Serotype 9 to the Brain, Using Magnetic Resonance Imaging-Guided Focused Ultrasound. Human Gene Therapy, 2012, 23, 1144-1155.	1.4	164
11	Stimulation of Hippocampal Neurogenesis by Transcranial Focused Ultrasound and Microbubbles in Adult Mice. Brain Stimulation, 2014, 7, 304-307.	0.7	122
12	The Neuroprotective Effects of Exercise: Maintaining a Healthy Brain Throughout Aging. Brain Plasticity, 2018, 4, 17-52.	1.9	116
13	p75NTR-dependent, myelin-mediated axonal degeneration regulates neural connectivity in the adult brain. Nature Neuroscience, 2010, 13, 559-566.	7.1	104
14	Comparative ontogenic profile of cholinergic markers, including nicotinic and muscarinic receptors, in the rat brain. , 1996, 369, 31-55.		102
15	Glymphatics Visualization after Focused Ultrasoundâ€Induced Bloodâ€“Brain Barrier Opening in Humans. Annals of Neurology, 2019, 86, 975-980.	2.8	80
16	Cholinergic markers in aged cognitively impaired long-evans rats. Neuroscience, 1995, 67, 277-292.	1.1	75
17	Expression of L1 and PSA during sprouting and regeneration in the adult hippocampal formation. Journal of Comparative Neurology, 1998, 399, 1-19.	0.9	68
18	Gene delivery to the spinal cord using MRI-guided focused ultrasound. Gene Therapy, 2015, 22, 568-577.	2.3	65

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19	The Benefits of Exercise and Metabolic Interventions for the Prevention and Early Treatment of Alzheimer's Disease. Current Alzheimer Research, 2016, 14, 47-60.	0.7	64
20	Polysialic acid regulates the clustering, migration, and neuronal differentiation of progenitor cells in the adult hippocampus. Developmental Neurobiology, 2008, 68, 1580-1590.	1.5	63
21	Hippocampal GABAergic Neurons are Susceptible to Amyloid-Î² Toxicity in vitro and are Decreased in Number in the Alzheimer's Disease TgCRND8 Mouse Model. Journal of Alzheimer's Disease, 2012, 29, 293-308.	1.2	61
22	MR-guided focused ultrasound liquid biopsy enriches circulating biomarkers in patients with brain tumors. Neuro-Oncology, 2021, 23, 1789-1797.	0.6	59
23	Time course of focused ultrasound effects on Î²-amyloid plaque pathology in the TgCRND8 mouse model of Alzheimerâ€™s disease. Scientific Reports, 2018, 8, 14061.	1.6	58
24	Focused Ultrasound-Induced Neurogenesis Requires an Increase in Blood-Brain Barrier Permeability. PLoS ONE, 2016, 11, e0159892.	1.1	58
25	Characterization and autoradiographic distribution of [3H]AF-DX 384 binding to putative muscarinic M2 receptors in the rat brain. European Journal of Pharmacology, 1992, 217, 173-184.	1.7	55
26	Effect of Ser-129 Phosphorylation on Interaction of Î±-Synuclein with Synaptic and Cellular Membranes. Journal of Biological Chemistry, 2011, 286, 35863-35873.	1.6	49
27	Noninvasive delivery of an Î±â€synuclein gene silencing vector with magnetic resonanceâ€“guided focused ultrasound. Movement Disorders, 2018, 33, 1567-1579.	2.2	49
28	Clinically approved IVIg delivered to the hippocampus with focused ultrasound promotes neurogenesis in a model of Alzheimerâ€™s disease. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 32691-32700.	3.3	48
29	Focused ultrasound delivery of a selective TrkA agonist rescues cholinergic function in a mouse model of Alzheimerâ€™s disease. Science Advances, 2020, 6, eaax6646.	4.7	46
30	The length of hippocampal cholinergic fibers is reduced in the aging brain. Neurobiology of Aging, 2008, 29, 1666-1679.	1.5	45
31	Overexpression of the vesicular acetylcholine transporter increased acetylcholine release in the hippocampus. Neuroscience, 2012, 218, 1-11.	1.1	45
32	Multiple cholinergic markers are unexpectedly not altered in the rat dentate gyrus following entorhinal cortex lesions. Journal of Neuroscience, 1994, 14, 2476-2484.	1.7	44
33	Stem cell transplantation for neurometabolic and neurodegenerative diseases. Neuropharmacology, 2010, 58, 845-854.	2.0	44
34	Hippocampal grafts of acetylcholine-producing cells are sufficient to improve behavioural performance following a unilateral fimbriaâ€“fornix lesion. Neuroscience, 1998, 84, 771-781.	1.1	41
35	A Comparative Study Evaluating the Impact of Physical Exercise on Disease Progression in a Mouse Model of Alzheimerâ€™s Disease. Journal of Alzheimer's Disease, 2016, 53, 243-257.	1.2	40
36	MRI-Guided Focused Ultrasound for Targeted Delivery of rAAV to the Brain. Methods in Molecular Biology, 2019, 1950, 177-197.	0.4	36

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37	Sodium/myo-Inositol Transporters: Substrate Transport Requirements and Regional Brain Expression in the TgCRND8 Mouse Model of Amyloid Pathology. PLoS ONE, 2011, 6, e24032.	1.1	34
38	Polysialic acid limits choline acetyltransferase activity induced by brain-derived neurotrophic factor. Journal of Neurochemistry, 2006, 99, 797-806.	2.1	32
39	Chapter 8: Autoradiographic distribution of putative muscarinic receptor sub-types in mammalian brain. Progress in Brain Research, 1993, 98, 85-93.	0.9	30
40	Developmental profiles of various cholinergic markers in the rat main olfactory bulb using quantitative autoradiography. , 1996, 373, 433-450.		29
41	Disrupting the bloodâ€“brain barrier with focused ultrasound: Perspectives on inflammation and regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6735-E6736.	3.3	28
42	Investigating the efficacy of a combination AÎ²-targeted treatment in a mouse model of Alzheimerâ€™s disease. Brain Research, 2018, 1678, 138-145.	1.1	28
43	Neurochemical Deficits in Pathological Brain Aging: Specificity and Possible Relevance for Treatment Strategies. Clinical Neuropharmacology, 1990, 13, S73-S80.	0.2	25
44	Loss of Neuronal Protein Expression in Mouse Hippocampus After Irradiation. Journal of Neuropathology and Experimental Neurology, 2010, 69, 272-280.	0.9	24
45	Strategy to enhance transgene expression in proximity of amyloid plaques in a mouse model of Alzheimer's disease. Theranostics, 2019, 9, 8127-8137.	4.6	22
46	Endothelial cells regulate p53-dependent apoptosis of neural progenitors after irradiation. Cell Death and Disease, 2012, 3, e324-e324.	2.7	20
47	Overexpression of the vesicular acetylcholine transporter enhances dendritic complexity of adult-born hippocampal neurons and improves acquisition of spatial memory during aging. Neurobiology of Aging, 2015, 36, 1881-1889.	1.5	19
48	Focused ultrasound as a novel strategy for noninvasive gene delivery to retinal MÃ¼ller glia. Theranostics, 2020, 10, 2982-2999.	4.6	19
49	B6e<scp>GFPChAT</scp> mice overexpressing the vesicular acetylcholine transporter exhibit spontaneous hypoactivity and enhanced exploration in novel environments. Brain and Behavior, 2013, 3, 367-383.	1.0	18
50	A non-surgical model of cervical spinal cord injury induced with focused ultrasound and microbubbles. Journal of Neuroscience Methods, 2014, 235, 92-100.	1.3	18
51	Ultrasound delivery of a TrkA agonist confers neuroprotection to Alzheimer-associated pathologies. Brain, 2022, 145, 2806-2822.	3.7	18
52	Vaccine Development for Alzheimers Disease. Current Pharmaceutical Design, 2006, 12, 4283-4293.	0.9	16
53	Miniaturized electrochemical system for cholinesterase inhibitor detection. Analytica Chimica Acta, 2013, 774, 73-78.	2.6	16
54	Intraventricular injection of antibodies to Î²₁-integrins generates pressure gradients in the brain favoring hydrocephalus development in rats. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2009, 297, R1312-R1321.	0.9	15

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55	Early Increases in Soluble Amyloid-Î² Levels Coincide with Cholinergic Degeneration in 3xTg-AD Mice. Journal of Alzheimer's Disease, 2012, 32, 267-272.	1.2	15
56	P53 regulates disruption of neuronal development in the adult hippocampus after irradiation. Cell Death Discovery, 2016, 2, 16072.	2.0	14
57	Proliferation, differentiation and amyloid-Î² production in neural progenitor cells isolated from TgCRND8 mice. Neuroscience, 2014, 261, 52-59.	1.1	13
58	Transgene distribution and immune response after ultrasound delivery of rAAV9 and PHP.B to the brain in a mouse model of amyloidosis. Molecular Therapy - Methods and Clinical Development, 2021, 23, 390-405.	1.8	13
59	Expression of L1 and PSA during sprouting and regeneration in the adult hippocampal formation. Journal of Comparative Neurology, 1998, 399, 1-19.	0.9	13
60	Abrogation of Early Apoptosis Does Not Alter Late Inhibition of Hippocampal Neurogenesis After Irradiation. International Journal of Radiation Oncology Biology Physics, 2010, 77, 1213-1222.	0.4	12
61	The cell adhesion molecule L1 regulates the expression of choline acetyltransferase and the development of septal cholinergic neurons. Brain and Behavior, 2011, 1, 73-86.	1.0	12
62	Vasculotide restores the blood-brain barrier after focused ultrasound-induced permeability in a mouse model of Alzheimer's disease. International Journal of Medical Sciences, 2021, 18, 482-493.	1.1	12
63	Systemic AAV6-synapsin-GFP administration results in lower liver biodistribution, compared to AAV1&2 and AAV9, with neuronal expression following ultrasound-mediated brain delivery. Scientific Reports, 2021, 11, 1934.	1.6	12
64	Stimulation of choline acetyltransferase by C3d, a neural cell adhesion molecule ligand. Journal of Neuroscience Research, 2009, 87, 609-616.	1.3	11
65	The human brain endothelial barrier: transcytosis of AAV9, transduction by AAV2. Journal of Neurochemistry, 2017, 140, 192-194.	2.1	11
66	Breached Barriers: A Scoping Review of Blood-Central Nervous System Barrier Pathology in Amyotrophic Lateral Sclerosis. Frontiers in Cellular Neuroscience, 2022, 16, 851563.	1.8	11
67	Polysialic acid limits septal neurite outgrowth on laminin. Brain Research, 2007, 1144, 52-58.	1.1	9
68	Effects of Neurotrophic Support and Amyloid-Targeted Combined Therapy on Adult Hippocampal Neurogenesis in a Transgenic Model of Alzheimer's Disease. PLoS ONE, 2016, 11, e0165393.	1.1	8
69	Focused ultrasound: crossing barriers to treat Alzheimerâ€™s disease. Therapeutic Delivery, 2011, 2, 281-286.	1.2	6
70	The effects of voluntary running on cerebrovascular morphology and spatial short-term memory in a mouse model of amyloidosis. NeuroImage, 2020, 222, 117269.	2.1	6
71	Apolipoprotein E4 and Cholinergic Dysfunction in Alzheimerâ€™s Disease. , 1994, , 72-76.		6
72	Apolipoprotein E4, Cholinergic Integrity, Synaptic Plasticity and Alzheimerâ€™s Disease. , 1996, , 20-28.		5

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73	Viral alpha-synuclein knockdown prevents spreading synucleinopathy. Brain Communications, 2021, 3, fcab247.	1.5	5
74	MORPHIOUS: an unsupervised machine learning workflow to detect the activation of microglia and astrocytes. Journal of Neuroinflammation, 2022, 19, 24.	3.1	5
75	Constrained and unstable expansion of dislocation loops using an invariant formulation of the free energy. Mechanics of Materials, 1997, 26, 127-137.	1.7	4
76	Cell adhesion molecule L1 promotes neurite outgrowth of septal neurons. Journal of Neuroscience Research, 2004, 75, 667-677.	1.3	4
77	The therapeutic potential of nerve growth factor combined with blood-brain barrier modulation by focused ultrasound for neurodegenerative disorders. Neural Regeneration Research, 2021, 16, 1783.	1.6	4
78	Intravenous and Non-invasive Drug Delivery to the Mouse Basal Forebrain Using MRI-guided Focused Ultrasound. Bio-protocol, 2021, 11, e4056.	0.2	3
79	Autoradiographic Distribution of Nicotinic Receptor Sites Labelled with [3H]Cytisine in the Human Brain. , 1995, , 363-369.		2
80	Anti-amyloid beta treatments: can they promote cholinergic survival and neurogenesis?. Neuroscience Research, 2009, 65, S64.	1.0	0
81	Delivery of stem cells to the brain using MRIgFUS. , 2011, , .		0
82	Two-photon microscopy for real-time monitoring of focused ultrasound-mediated drug delivery to the brain in a mouse model of Alzheimer's disease. Proceedings of SPIE, 2013, , .	0.8	0
83	Ultrasonic Methods. , 2019, , 209-228.		0
84	Effects of voluntary exercise on cognition, neurogenesis, and plaque load in a mouse model of Alzheimers disease.. FASEB Journal, 2013, 27, 712.33.	0.2	0
85	Improvement of cholinergic function during normal and pathological aging. FASEB Journal, 2013, 27, 316.1.	0.2	0
86	Apolipoprotein E4 and Cholinergic Activity in Alzheimerâ€™s Disease. , 1997, , 55-60.		0