N Joan Abbott

List of Publications by Year
in descending order

97 papers	19,197 citations	61984 43 h-index	40979 93 g-index
101 all docs	101 docs citations	101 times ranked	20716 citing authors

#	Article	IF	Citations
1	Astrocyteâ€"endothelial interactions at the bloodâ€"brain barrier. Nature Reviews Neuroscience, 2006, 7, 41-53.	10.2	4,411
2	Structure and function of the bloodâ€"brain barrier. Neurobiology of Disease, 2010, 37, 13-25.	4.4	3,800
3	Astrocyteâ€"endothelial interactions and bloodâ€"brain barrier permeability*. Journal of Anatomy, 2002, 200, 629-638.	1.5	1,001
4	Evidence for bulk flow of brain interstitial fluid: significance for physiology and pathology. Neurochemistry International, 2004, 45, 545-552.	3.8	702
5	Inflammatory mediators and modulation of blood-brain barrier permeability. Cellular and Molecular Neurobiology, 2000, 20, 131-147.	3.3	701
6	Bloodâ€"brain barrier structure and function and the challenges for CNS drug delivery. Journal of Inherited Metabolic Disease, 2013, 36, 437-449.	3.6	656
7	InÂvitro models of the bloodâ€"brain barrier: An overview of commonly used brain endothelial cell culture models and guidelines for their use. Journal of Cerebral Blood Flow and Metabolism, 2016, 36, 862-890.	4.3	588
8	Interaction between flavonoids and the bloodâ€"brain barrier: <i>in vitro</i> studies. Journal of Neurochemistry, 2003, 85, 180-192.	3.9	496
9	Flavonoid permeability across an in situ model of the bloodâ€"brain barrier. Free Radical Biology and Medicine, 2004, 36, 592-604.	2.9	493
10	Strategies to advance translational research into brain barriers. Lancet Neurology, The, 2008, 7, 84-96.	10.2	432
11	The role of brain barriers in fluid movement in the CNS: is there a â€˜glymphaticâ€™ system?. Acta Neuropathologica, 2018, 135, 387-407.	7.7	429
12	Transporting therapeutics across the blood-brain barrier. Trends in Molecular Medicine, 1996, 2, 106-113.	2.6	403
13	Dynamics of CNS Barriers: Evolution, Differentiation, and Modulation. Cellular and Molecular Neurobiology, 2005, 25, 5-23.	3.3	389
14	Overview and introduction: The bloodâ€"brain barrier in health and disease. Epilepsia, 2012, 53, 1-6.	5.1	275
15	The bloodâ€"brain barrier in psychosis. Lancet Psychiatry,the, 2018, 5, 79-92.	7.4	212
16	Intrathecal antibody distribution in the rat brain: surface diffusion, perivascular transport and osmotic enhancement of delivery. Journal of Physiology, 2018, 596, 445-475.	2.9	201
17	The blood-brain barrier in systemic lupus erythematosus. Lupus, 2003, 12, 908-915.	1.6	185
18	The interaction of carbon nanotubes with an inÂvitro blood-brain barrier model and mouse brain inÂvivo. Biomaterials, 2015, 53, 437-452.	11.4	178

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19	Delivery of therapeutics to the inner ear: The challenge of the blood-labyrinth barrier. Science Translational Medicine, 2019, 11, .	12.4	174
20	Pluripotent Protective Effects of Carnosine, a Naturally Occurring Dipeptide^a. Annals of the New York Academy of Sciences, 1998, 854, 37-53.	3.8	165
21	In vitro trans-monolayer permeability calculations: often forgotten assumptions. Drug Discovery Today, 2003, 8, 997-1003.	6.4	161
22	Prediction of bloodâ€“brain barrier permeation in drug discovery from in vivo, in vitro and in silico models. Drug Discovery Today: Technologies, 2004, 1, 407-416.	4.0	151
23	Molecular characterization of perivascular drainage pathways in the murine brain. Journal of Cerebral Blood Flow and Metabolism, 2018, 38, 669-686.	4.3	138
24	All vertebrates started out with a glial bloodâ€brain barrier 4â€“500 million years ago. Glia, 2008, 56, 699-708.	4.9	133
25	Establishment of a simplified in vitro porcine bloodâ€“brain barrier model with high transendothelial electrical resistance. Brain Research, 2013, 1521, 1-15.	2.2	125
26	Transcytosis of Macromolecules at the Bloodâ€“Brain Barrier. Advances in Pharmacology, 2014, 71, 147-163.	2.0	124
27	Delivery of paclitaxel across cellular barriers using a dendrimer-based nanocarrier. International Journal of Pharmaceutics, 2013, 441, 701-711.	5.2	121
28	LRP-1-mediated intracellular antibody delivery to the Central Nervous System. Scientific Reports, 2015, 5, 11990.	3.3	113
29	Translocation of LRP1 targeted carbon nanotubes of different diameters across the bloodâ€“brain barrier in vitro and in vivo. Journal of Controlled Release, 2016, 225, 217-229.	9.9	111
30	Induction of aquaporin 1 but not aquaporin 4 messenger RNA in rat primary brain microvessel endothelial cells in culture. Journal of Neurochemistry, 2005, 93, 825-833.	3.9	104
31	Functional Expression of Pâ€Glycoprotein in an Immortalised Cell Line of Rat Brain Endothelial Cells, RBE4. Journal of Neurochemistry, 1996, 67, 988-995.	3.9	96
32	Evidence that glutamate mediates Axon-to-Schwann cell signaling in the squid. Glia, 1989, 2, 94-102.	4.9	94
33	A detailed method for preparation of a functional and flexible bloodâ€“brain barrier model using porcine brain endothelial cells. Brain Research, 2013, 1521, 16-30.	2.2	93
34	An Improved In Vitro Bloodâ€“Brain Barrier Model: Rat Brain Endothelial Cells Co-cultured with Astrocytes. Methods in Molecular Biology, 2012, 814, 415-430.	0.9	90
35	An Overview of In Vitro Techniques for Blood-Brain Barrier Studies. , 2003, 89, 307-324.		84
36	Vascular and Parenchymal Mechanisms in Multiple Drug Resistance: a Lesson from Human Epilepsy. Current Drug Targets, 2003, 4, 297-304.	2.1	75

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37	Receptor-mediated changes in intracellular [Ca2+] in cultured rat brain capillary endothelial cells. Brain Research, 1991, 549, 159-161.	2.2	71
38	Bradykinin increases permeability by calcium and 5-lipoxygenase in the ECV304/C6 cell culture model of the bloodâ€"brain barrier. Brain Research, 2002, 953, 157-169.	2.2	71
39	Drug Resistance in Epilepsy: The Role of the Blood-Brain Barrier. Novartis Foundation Symposium, 2008, , 38-53.	1.1	67
40	Assays to Predict Drug Permeation Across the Blood-Brain Barrier, and Distribution to Brain. Current Drug Metabolism, 2008, 9, 901-910.	1.2	64
41	P-Glycoprotein expression in human retinal pigment epithelium cell lines. Experimental Eye Research, 2006, 83, 24-30.	2.6	62
42	TRPA1â€"FGFR2 binding event is a regulatory oncogenic driver modulated by miRNA-142-3p. Nature Communications, 2017, 8, 947.	12.8	56
43	The Blood-Brain Interface in Invertebrates. Annals of the New York Academy of Sciences, 1986, 481, 20-42.	3.8	55
44	A High-Content Small Molecule Screen Identifies Sensitivity of Glioblastoma Stem Cells to Inhibition of Polo-Like Kinase 1. PLoS ONE, 2013, 8, e77053.	2.5	53
45	Na+-Ca2+exchange and its implications for calcium homeostasis in primary cultured rat brain microvascular endothelial cells. Journal of Physiology, 1999, 515, 147-155.	2.9	47
46	Understanding the Physiology of the Blood-Brain Barrier: In Vitro Models. Physiology, 1998, 13, 287-293.	3.1	40
47	Brain to blood efflux transport of adenosine: blood-brain barrier studies in the rat. Journal of Neurochemistry, 2004, 90, 272-286.	3.9	36
48	Physiology of the bloodâ€"brain barrier and its consequences for drug transport to the brain. International Congress Series, 2005, 1277, 3-18.	0.2	36
49	Uptake and metabolism of sulphated steroids by the bloodâ€"brain barrier in the adult male rat. Journal of Neurochemistry, 2017, 142, 672-685.	3.9	36
50	Characteristics of nucleotide receptors that cause elevation of cytoplasmic calcium in immortalized rat brain endothelial cells (RBE4) and in primary cultures. British Journal of Pharmacology, 1995, 115, 1245-1252.	5.4	33
51	Carrier-Mediated Delivery of Metabotropic Glutamate Receptor Ligands to the Central Nervous System: Structural Tolerance and Potential of the l-system Amino Acid Transporter at the Blood-Brain Barrier. Journal of Cerebral Blood Flow and Metabolism, 2000, 20, 168-174.	4.3	32
52	Access of ferritin to the interstitial space of Carcinus brain from intracerebral blood vessels. Tissue and Cell, 1972, 4, 99-104.	2.2	31
53	Bloodâ€"brain barrier opened by stimulation of the parasympathetic sphenopalatine ganglion: a new method for macromolecule delivery to the brain. Journal of Neurosurgery, 2004, 101, 303-309.	1.6	30
54	Transendothelial electrical potential across pial vessels in anaesthetised rats: a study of ion permeability and transport at the blood-brain barrier. Brain Research, 1994, 652, 76-82.	2.2	29

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55	Drug resistance in epilepsy: the role of the blood-brain barrier. Novartis Foundation Symposium, 2002, 243, 38-47; discussion 47-53, 180-5.	1.1	29
56	LIPIDS IN BLOODâ€"BRAIN BARRIER MODELS IN VITRO II: INFLUENCE OF GLIAL CELLS ON LIPID CLASSES AND LIPID FATTY ACIDS. In Vitro Cellular and Developmental Biology - Animal, 2002, 38, 566.	1.5	27
57	The endo-lysosomal system of bEnd.3 and hCMEC/D3 brain endothelial cells. Fluids and Barriers of the CNS, 2019, 16, 14.	5.0	27
58	LIPIDS IN BLOODâ€"BRAIN BARRIER MODELS IN VITRO I: THIN-LAYER CHROMATOGRAPHY AND HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY FOR THE ANALYSIS OF LIPID CLASSES AND LONG-CHAIN POLYUNSATURATED FATTY ACIDS. In Vitro Cellular and Developmental Biology - Animal, 2002, 38, 557.	1.5	26
59	Role of astrocytic leptin receptor subtypes on leptin permeation across hCMEC/D3 human brain endothelial cells. Journal of Neurochemistry, 2010, 115, 1288-1298.	3.9	26
60	Primary Porcine Brain Microvessel Endothelial Cell Isolation and Culture. Current Protocols in Neuroscience, 2014, 69, 3.27.1-17.	2.6	25
61	A Multi-System Approach Assessing the Interaction of Anticonvulsants with P-gp. PLoS ONE, 2013, 8, e64854.	2.5	25
62	Permeability and Transport of Glial Blood-Brain Barriers. Annals of the New York Academy of Sciences, 1991, 633, 378-394.	3.8	24
63	Functional characterisation of nucleoside transport in rat brain endothelial cells. NeuroReport, 2003, 14, 1087-1090.	1.2	24
64	Functional characterisation of nucleoside transport in rat brain endothelial cells. NeuroReport, 2003, 14, 1087-1090.	1.2	24
65	Bidirectional apicalâ€"basal traffic of the cation-independent mannose-6-phosphate receptor in brain endothelial cells. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 2598-2613.	4.3	23
66	CoQ10 Deficient Endothelial Cell Culture Model for the Investigation of CoQ10 Bloodâ€"Brain Barrier Transport. Journal of Clinical Medicine, 2020, 9, 3236.	2.4	22
67	The pharmacology of nucleotide receptors on primary rat brain endothelial cells grown on a biological extracellular matrix: effects on intracellular calcium concentration. British Journal of Pharmacology, 2000, 131, 1195-1203.	5.4	20
68	Evaluation of the RBE4 Cell Line to Explore Carrier-mediated Drug Delivery to the CNS Via the L-system Amino Acid Transporter At the Blood-Brain Barrier. Journal of Drug Targeting, 2002, 10, 277-283.	4.4	20
69	Glia and the bloodâ€"brain barrier. Nature, 1987, 325, 195-195.	27.8	19
70	In Vitro Models of CNS Barriers. AAPS Advances in the Pharmaceutical Sciences Series, 2014, , 163-197.	0.6	19
71	The action of phospholipases on the inner and outer surface of the squid giant axon membrane. Journal of Physiology, 1972, 220, 73-86.	2.9	17
72	Improved Method for the Establishment of an In Vitro Blood-Brain Barrier Model Based on Porcine Brain Endothelial Cells. Journal of Visualized Experiments, 2017, , .	0.3	17

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73	In vitro porcine bloodâ€“brain barrier model for permeability studies: pCEL-X software pKaFLUX method for aqueous boundary layer correction and detailed data analysis. European Journal of Pharmaceutical Sciences, 2014, 65, 98-111.	4.0	16
74	Role of intracellular calcium in regulation of brain endothelial permeability. , 1998, , 345-353.		15
75	Interaction of Nucleoside Analogues with Nucleoside Transporters in Rat Brain Endothelial Cells. Journal of Drug Targeting, 2004, 12, 265-272.	4.4	15
76	Primitive forms of brain homeostasis. Trends in Neurosciences, 1979, 2, 91-93.	8.6	13
77	Longitudinal serum S100Î² and brain aging in the Lothian Birth Cohort 1936. Neurobiology of Aging, 2018, 69, 274-282.	3.1	13
78	Ionic permeability of the frog sciatic nerve perineurium: parallel studies of potassium and lanthanum penetration using electrophysiological and electron microscopic techniques. Journal of Neurocytology, 2000, 29, 551-567.	1.5	12
79	Fine-structural investigation of rat brain microvascular endothelial cells: Tight junctions and vesicular structures in freshly isolated and cultured preparations. Journal of Neurocytology, 1995, 24, 347-360.	1.5	11
80	Characterization of a novel brain barrier ex vivo insectâ€based Pâ€glycoprotein screening model. Pharmacology Research and Perspectives, 2014, 2, e00050.	2.4	10
81	Ionic currents in isolated and in situ squid Schwann cells. Journal of Physiology, 2002, 541, 769-778.	2.9	9
82	Anatomy and Physiology of the Bloodâ€“Brain Barriers. AAPS Advances in the Pharmaceutical Sciences Series, 2014, , 3-21.	0.6	9
83	Glucosamine-NISV delivers antibody across the blood-brain barrier: Optimization for treatment of encephalitic viruses. Journal of Controlled Release, 2020, 324, 644-656.	9.9	9
84	The milieu is the message. Nature, 1988, 332, 490-491.	27.8	8
85	Increased oxidative metabolism and oxidative stress in <i>m</i>-dinitrobenzene neurotoxicity. Biochemical Society Transactions, 1994, 22, 407S-407S.	3.4	7
86	Adhesion and Growth of Brain Microvascular Endothelial Cells on Treated Glass. Endothelium: Journal of Endothelial Cell Research, 1996, 4, 297-307.	1.7	7
87	The Na-K ATPase of the Blood-Brain Barrier: A Microelectrode Study. Annals of the New York Academy of Sciences, 1986, 481, 390-391.	3.8	6
88	Investigation of receptors responsive to pyrimidines. Trends in Pharmacological Sciences, 1997, 18, 413-414.	8.7	6
89	Biological Models to Study Blood-Brain Barrier Permeation. , 0, , 127-153.		6
90	Cross reactivity of polyclonal GFAP antiserum: implications for the in-vitro characterisation of brain endothelium. Brain Research, 2004, 1012, 185-186.	2.2	4

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91	Amino acid transport by a glial blood-brain barrier: studies in an elasmobranch fish. , 1988, , 241-244.		3
92	Impact of capillary flow hydrodynamics on carrier-mediated transport of opioid derivatives at the blood-brain barrier, based on pH-dependent Michaelis-Menten and Crone-Renkin analyses. European Journal of Pharmaceutical Sciences, 2017, 106, 274-286.	4.0	2
93	Anatomy and Physiology of the Blood-Brain Barriers*. AAPS Advances in the Pharmaceutical Sciences Series, 2022, , 3-25.	0.6	2
94	High K+ content explains the abolition of the action potential in amphibian sciatic nerve in vitro byLathyrus sativus seed extract. Experientia, 1979, 35, 1363-1364.	1.2	1
95	Electrophysiological Properties of Squid Giant Axon Schwann Cells.. Annals of the New York Academy of Sciences, 1991, 633, 607-609.	3.8	1
96	Introduction: Special Issue in Honor of Eva SykovÃ¡. Neurochemical Research, 2020, 45, 1-4.	3.3	1
97	Whispers in the nervous system: Do glia and brain endothelial cells talk to each other, and if so what do they say?. , 2003, , 8-11.		0