Norman Ruthven Saunders

List of Publications by Year
in descending order

117 papers	6,359 citations	66343 42 h-index	71685 76 g-index
164 all docs	164 docs citations	164 times ranked	6760 citing authors

#	Article	IF	Citations
1	Engaging neuroscience to advance translational research in brain barrier biology. Nature Reviews Neuroscience, 2011, 12, 169-182.	10.2	508
2	Barrier Mechanisms in the Developing Brain. Frontiers in Pharmacology, 2012, 3, 46.	3.5	378
3	Markers for blood-brain barrier integrity: how appropriate is Evans blue in the twenty-first century and what are the alternatives?. Frontiers in Neuroscience, 2015, 9, 385.	2.8	237
4	Development of the choroid plexus. Microscopy Research and Technique, 2001, 52, 5-20.	2.2	206
5	Changes in blood-brain barrier permeability to large and small molecules following traumatic brain injury in mice. European Journal of Neuroscience, 2007, 25, 231-238.	2.6	197
6	Barriers in the brain: a renaissance?. Trends in Neurosciences, 2008, 31, 279-286.	8.6	191
7	The rights and wrongs of blood-brain barrier permeability studies: a walk through 100 years of history. Frontiers in Neuroscience, 2014, 8, 404.	2.8	179
8	Barriers in the developing brain and Neurotoxicology. NeuroToxicology, 2012, 33, 586-604.	3.0	165
9	Barriers in the immature brain. Cellular and Molecular Neurobiology, 2000, 20, 29-40.	3.3	140
10	The bloodâ€"CSF barrier explained: when development is not immaturity. BioEssays, 2008, 30, 237-248.	2.5	140
11	Functional effectiveness of the blood-brain barrier to small water-soluble molecules in developing and adult opossum (Monodelphis domestica). Journal of Comparative Neurology, 2006, 496, 13-26.	1.6	138
12	BARRIER MECHANISMS IN THE BRAIN, I. ADULT BRAIN. Clinical and Experimental Pharmacology and Physiology, 1999, 26, 11-19.	1.9	137
13	Regeneration of immature mammalian spinal cord after injury. Trends in Neurosciences, 1996, 19, 229-234.	8.6	132
14	Longâ€term changes in bloodâ€"brain barrier permeability and white matter following prolonged systemic inflammation in early development in the rat. European Journal of Neuroscience, 2005, 22, 2805-2816.	2.6	131
15	Ontogeny of the blood-brain barrier. Experimental Eye Research, 1977, 25, 523-550.	2.6	117
16	Transporters of the bloodâ€"brain and bloodâ€"CSF interfaces in development and in the adult. Molecular Aspects of Medicine, 2013, 34, 742-752.	6.4	111
17	Efflux mechanisms at the developing brain barriers: ABC-transporters in the fetal and postnatal rat. Toxicology Letters, 2010, 197, 51-59.	0.8	104
18	The biological significance of brain barrier mechanisms: help or hindrance in drug delivery to the central nervous system?. F1000Research, 2016, 5, 313.	1.6	104

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19	The Subventricular Zone Is the Developmental Milestone of a 6-Layered Neocortex: Comparisons in Metatherian and Eutherian Mammals. Cerebral Cortex, 2010, 20, 1071-1081.	2.9	101
20	Complexity and developmental changes in the expression pattern of claudins at the bloodâ€“CSF barrier. Histochemistry and Cell Biology, 2012, 138, 861-879.	1.7	100
21	The inner CSFÃ¢â‚¬â€œbrain barrier: developmentally controlled access to the brain via intercellular junctions. Frontiers in Neuroscience, 2015, 9, 16.	2.8	92
22	Breakdown of the bloodâ€“brain barrier to proteins in white matter of the developing brain following systemic inflammation. Cell and Tissue Research, 2005, 320, 369-378.	2.9	90
23	Cell junctions and membrane specializations in the ventricular zone (germinal matrix) of the developing sheep brain: A CSF-brain barrier. Journal of Neurocytology, 1987, 16, 433-444.	1.5	88
24	Structural characteristics and barrier properties of the choroid plexuses in developing brain of the opossum (Monodelphis Domestica). Journal of Comparative Neurology, 2003, 460, 451-464.	1.6	87
25	Physiology and molecular biology of barrier mechanisms in the fetal and neonatal brain. Journal of Physiology, 2018, 596, 5723-5756.	2.9	82
26	Spatio-Temporal Progression of Grey and White Matter Damage Following Contusion Injury in Rat Spinal Cord. PLoS ONE, 2010, 5, e12021.	2.5	79
27	Blood-CSF barrier function in the rat embryo. European Journal of Neuroscience, 2006, 24, 65-76.	2.6	78
28	Aquaporin-1 in the choroid plexuses of developing mammalian brain. Cell and Tissue Research, 2005, 322, 353-364.	2.9	77
29	Comparative Aspects of Subplate Zone Studied with Gene Expression in Sauropsids and Mammals. Cerebral Cortex, 2011, 21, 2187-2203.	2.9	75
30	Developmental changes in the transcriptome of the rat choroid plexus in relation to neuroprotection. Fluids and Barriers of the CNS, 2013, 10, 25.	5.0	68
31	Mechanisms That Determine the Internal Environment of the Developing Brain: A Transcriptomic, Functional and Ultrastructural Approach. PLoS ONE, 2013, 8, e65629.	2.5	65
32	Reduced ventricular proliferation in the foetal cortex following maternal inflammation in the mouse. Brain, 2011, 134, 3236-3248.	7.6	62
33	Molecular Characterisation of Transport Mechanisms at the Developing Mouse Bloodâ€“CSF Interface: A Transcriptome Approach. PLoS ONE, 2012, 7, e33554.	2.5	61
34	Permeability and route of entry for lipidâ€insoluble molecules across brain barriers in developing Monodelphis domestica. Journal of Physiology, 2001, 536, 841-853.	2.9	60
35	The nucleotide and deduced amino acid structures of sheep and pig fetuin. Common structural features of the mammalian fetuin family. FEBS Journal, 1992, 205, 321-331.	0.2	57
36	Immune responses at brain barriers and implications for brain development and neurological function in later life. Frontiers in Integrative Neuroscience, 2013, 7, 61.	2.1	57

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37	Brain barriers and functional interfaces with sequential appearance of ABC efflux transporters during human development. Scientific Reports, 2017, 7, 11603.	3.3	57
38	Effects of Neonatal Systemic Inflammation on Blood-Brain Barrier Permeability and Behaviour in Juvenile and Adult Rats. Cardiovascular Psychiatry and Neurology, 2011, 2011, 1-10.	0.8	53
39	Modification of macrophage response to lipopolysaccharide by fetuin. Immunology Letters, 1998, 60, 31-35.	2.5	52
40	Development of thalamocortical projections in the South American gray short-tailed opossum (Monodelphis domestica). , 1998, 398, 491-514.		51
41	The importance of the blood-brain barrier in fetuses and embryos. Trends in Neurosciences, 1991, 14, 14.	8.6	47
42	Cellular transfer of macromolecules across the developing choroid plexus of <i>Monodelphis domestica</i>. European Journal of Neuroscience, 2009, 29, 253-266.	2.6	47
43	Differential immunocytochemical staining for fetuin and transferrin in the developing cortical plate. Journal of Neurocytology, 1984, 13, 497-502.	1.5	45
44	Fetuin in the developing neocortex of the rat: Distribution and origin. Journal of Comparative Neurology, 2000, 423, 373-388.	1.6	41
45	The nature and composition of the internal environment of the developing brain. Cellular and Molecular Neurobiology, 2000, 20, 41-56.	3.3	40
46	Chicken GnRH II occurs together with mammalian GnRH in a South American species of marsupial (Monodelphis domestica). Peptides, 1990, 11, 521-525.	2.4	39
47	Age-related differences in the local cellular and molecular responses to injury in developing spinal cord of the opossum, Monodelphis domestica. European Journal of Neuroscience, 2007, 25, 1725-1742.	2.6	39
48	Effect of minocycline on inflammationâ€induced damage to the bloodâ€“brain barrier and white matter during development. European Journal of Neuroscience, 2007, 26, 3465-3474.	2.6	39
49	Pathological Changes in the White Matter after Spinal Contusion Injury in the Rat. PLoS ONE, 2012, 7, e43484.	2.5	38
50	Intracellular plasma proteins in human fetal choroid plexus during development II. The distribution of prealbumin, albumin, alpha-fetoprotein, transferrin, IgG, IgA, IgM, and alpha1-antitrypsin. Developmental Brain Research, 1982, 3, 251-262.	1.7	37
51	The neonatal blood-brain barrier is functionally effective, and immaturity does not explain differential targeting of AAV9. Nature Biotechnology, 2009, 27, 804-805.	17.5	37
52	Development of the lateral ventricular choroid plexus in a marsupial, Monodelphis domestica. Cerebrospinal Fluid Research, 2010, 7, 16.	0.5	37
53	Influx mechanisms in the embryonic and adult rat choroid plexus: a transcriptome study. Frontiers in Neuroscience, 2015, 9, 123.	2.8	37
54	Determinants of drug entry into the developing brain. F1000Research, 2019, 8, 1372.	1.6	37

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55	The genomic profile of the cerebral cortex after closed head injury in mice: effects of minocycline. Journal of Neural Transmission, 2009, 116, 1-12.	2.8	36
56	Factors involved in inflammation-induced developmental white matter damage. Neuroscience Letters, 2009, 451, 232-236.	2.1	35
57	Recent Developments in Understanding Barrier Mechanisms in the Developing Brain: Drugs and Drug Transporters in Pregnancy, Susceptibility or Protection in the Fetal Brain?. Annual Review of Pharmacology and Toxicology, 2019, 59, 487-505.	9.4	33
58	Intercellular barriers to and transcellular transfer of albumin in the fetal sheep brain. Anatomy and Embryology, 1997, 195, 229-236.	1.5	32
59	Stimulation of defecation in spinal cord-injured rats by a centrally acting ghrelin receptor agonist. Spinal Cord, 2011, 49, 1036-1041.	1.9	32
60	Cellular Specificity of the Bloodâ€"CSF Barrier for Albumin Transfer across the Choroid Plexus Epithelium. PLoS ONE, 2014, 9, e106592.	2.5	32
61	Regeneration of supraspinal axons after complete transection of the thoracic spinal cord in neonatal opossums (Monodelphis domestica). Journal of Comparative Neurology, 2003, 466, 422-444.	1.6	31
62	Rapid accumulation of acetylcholine in nerve above a crush. Journal of Pharmacy and Pharmacology, 2011, 23, 552-555.	2.4	31
63	The choroid plexus in fetal sheep during development with special reference to intracellular plasma proteins. Developmental Brain Research, 1983, 8, 77-88.	1.7	28
64	Ontogenetic development of diffusional restriction to protein at the pial surface of the rat brain: an electron microscopical study. Journal of Neurocytology, 1997, 26, 133-148.	1.5	28
65	Age-Dependent Transcriptome and Proteome Following Transection of Neonatal Spinal Cord of Monodelphis domestica (South American Grey Short-Tailed Opossum). PLoS ONE, 2014, 9, e99080.	2.5	28
66	Use of a Virtual Reality Physical Ride-On Sailing Simulator as a Rehabilitation Tool for Recreational Sports and Community Reintegration. American Journal of Physical Medicine and Rehabilitation, 2013, 92, 1104-1109.	1.4	25
67	Testing hypotheses of developmental constraints on mammalian brain partition evolution, using marsupials. Scientific Reports, 2017, 7, 4241.	3.3	24
68	Assessment of upwind dinghy sailing performance using a virtual reality dinghy sailing simulator. Journal of Science and Medicine in Sport, 1998, 1, 61-72.	1.3	22
69	Intracellular plasma proteins in human fetal choroid plexus during development I. Developmental stages in relation to the number of epithelial cells which contain albumin in telencephalic, diencephalic and myelencephalic choroid plexus. Developmental Brain Research, 1982, 3, 239-250.	1.7	21
70	Brain growth and neocortical development in the Opossum. Annals of Anatomy, 1994, 176, 395-407.	1.9	21
71	Modification of protein transfer across blood/cerebrospinal fluid barrier in response to altered plasma protein composition during development. European Journal of Neuroscience, 2011, 33, 391-400.	2.6	21
72	Expression and Cellular Distribution of Ubiquitin in Response to Injury in the Developing Spinal Cord of Monodelphis domestica. PLoS ONE, 2013, 8, e62120.	2.5	19

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73	Spontaneous Development of Full Weight-Supported Stepping after Complete Spinal Cord Transection in the Neonatal Opossum, Monodelphis domestica. PLoS ONE, 2011, 6, e26826.	2.5	18
74	SPARC/osteonectin, an endogenous mechanism for targeting albumin to the blood-cerebrospinal fluid interface during brain development. European Journal of Neuroscience, 2011, 34, 1062-1073.	2.6	18
75	Developmental differences in the expression of ABC transporters at rat brain barrier interfaces following chronic exposure to diallyl sulfide. Scientific Reports, 2019, 9, 5998.	3.3	18
76	Effects of histidine on tissue zinc distribution in rats. BioMetals, 1992, 5, 235-243.	4.1	17
77	Low levels of Na, K-ATPase and carbonic anhydrase II during choroid plexus development suggest limited involvement in early CSF secretion. Neuroscience Letters, 2008, 442, 77-80.	2.1	16
78	Effects of paracetamol (acetaminophen) on gene expression and permeability properties of the rat placenta and fetal brain. F1000Research, 2020, 9, 573.	1.6	16
79	Age-Dependent Changes in the Proteome Following Complete Spinal Cord Transection in a Postnatal South American Opossum (Monodelphis domestica). PLoS ONE, 2011, 6, e27465.	2.5	15
80	Visual abnormalities in albino wallabies: A brief note. , 1999, 403, 33-38.		14
81	Spinal Repair In Immature Animals: A Novel Approach Using The South American Opossum <i>Monodelphis Domestica</i>. Clinical and Experimental Pharmacology and Physiology, 2000, 27, 542-547.	1.9	14
82	Gene expression profiling of postnatal lung development in the marsupial gray short-tailed opossum (Monodelphis domestica) highlights conserved developmental pathways and specific characteristics during lung organogenesis. BMC Genomics, 2018, 19, 732.	2.8	14
83	Development of motoneurons and primary sensory afferents in the thoracic and lumbar spinal cord of the South American opossumMonodelphis domestica. Journal of Comparative Neurology, 1999, 414, 423-436.	1.6	13
84	Expression and localization of P2 nucleotide receptor subtypes during development of the lateral ventricular choroid plexus of the rat. European Journal of Neuroscience, 2007, 25, 3319-3331.	2.6	13
85	Selective inhibition of ASIC1a confers functional and morphological neuroprotection following traumatic spinal cord injury. F1000Research, 2016, 5, 1822.	1.6	13
86	Effects of paracetamol (acetaminophen) on gene expression and permeability properties of the rat placenta and fetal brain. F1000Research, 2020, 9, 573.	1.6	13
87	Fetuin in neurons of the retina and cerebellum duringfetal and postnatal development of the rat. International Journal of Developmental Neuroscience, 1999, 17, 21-30.	1.6	12
88	Delayed astrocytic contact with cerebral blood vessels in <scp>FGF</scp>â€2 deficient mice does not compromise permeability properties at the developing bloodâ€brain barrier. Developmental Neurobiology, 2016, 76, 1201-1212.	3.0	12
89	Selective inhibition of ASIC1a confers functional and morphological neuroprotection following traumatic spinal cord injury. F1000Research, 2016, 5, 1822.	1.6	12
90	Onset of neocortical synaptogenesis in neonatal <i>Monodelphis domestica</i> (South American grey) Tj ETQq0 0 0 rgBT /Overlock 10	1.2	11

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91	TGF-Î² receptor type II and fetuin in the developing sheep neocortex. Cell and Tissue Research, 1997, 290, 515-524.	2.9	11
92	Weight-Bearing Locomotion in the Developing Opossum, Monodelphis domestica following Spinal Transection: Remodeling of Neuronal Circuits Caudal to Lesion. PLoS ONE, 2013, 8, e71181.	2.5	10
93	Fetuin expression in the dorsal root ganglia and trigeminal ganglia of perinatal rats. International Journal of Developmental Neuroscience, 1997, 15, 717-727.	1.6	9
94	Entry of antiepileptic drugs (valproate and lamotrigine) into the developing rat brain. F1000Research, 2021, 10, 384.	1.6	9
95	Developmental neurotoxicity of industrial chemicals. Lancet, The, 2007, 369, 821.	13.7	8
96	Arrested development of the dorsal column following neonatal spinal cord injury in the opossum, Monodelphis domestica. Cell and Tissue Research, 2015, 359, 699-713.	2.9	7
97	Transthyretin distribution in the developing choroid plexus of the South American opossum () Tj ETQq1 1 0.784314 rgBT /Overlock 10 T	2.9	6
98	Understanding barrier mechanisms in the developing brain to aid therapy for the dysfunctional brain. Future Neurology, 2011, 6, 187-199.	0.5	6
99	Technology for mobility in SCI 10 years from now. Spinal Cord, 2012, 50, 358-363.	1.9	6
100	Acetaminophen in Pregnancy and Adverse Childhood Neurodevelopment. JAMA Pediatrics, 2017, 171, 395.	6.2	6
101	Entry of antiepileptic drugs (valproate and lamotrigine) into the developing rat brain. F1000Research, 2021, 10, 384.	1.6	6
102	A bipedal mammalian model for spinal cord injury research: The tammar wallaby. F1000Research, 2017, 6, 921.	1.6	6
103	Medications for pregnant women: A balancing act between the interests of the mother and of the fetus. Prenatal Diagnosis, 2020, 40, 1156-1167.	2.3	5
104	Editorial: Ontogeny and Phylogeny of Brain Barrier Mechanisms. Frontiers in Neuroscience, 2016, 10, 41.	2.8	4
105	Assessing Bloodâ€"Cerebrospinal Fluid Barrier Permeability in the Rat Embryo. Methods in Molecular Biology, 2011, 686, 247-265.	0.9	4
106	Lithium administered to pregnant, lactating and neonatal rats: entry into developing brain. Fluids and Barriers of the CNS, 2021, 18, 57.	5.0	4
107	CSIRO cuts. Nature, 1989, 339, 574-574.	27.8	2
108	NEUROBIDâ€"an EUâ€funded project to study the developing brain barriers. International Journal of Developmental Neuroscience, 2010, 28, 411-412.	1.6	2

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109	Transfer of rhodamine-123Âinto the brain and cerebrospinal fluid of fetal, neonatal and adult rats. Fluids and Barriers of the CNS, 2021, 18, 6.	5.0	2
110	Cerebrospinal fluid secretion. Clinical and Experimental Ophthalmology, 2010, 38, 325-325.	2.6	1
111	General Introduction to Barrier Mechanisms in the Central Nervous System. , 2017, , 1-22.		1
112	Recovery from injury in the immature mammalian spinal cord. , 0, , 17-52.		1
113	Spinal cord injuries: making the re-connection. Biologist, 2002, 49, 107-12.	2.0	1
114	Introduction to Special Issues: Barriers in the Brain. Cellular and Molecular Neurobiology, 2000, 20, 1-5.	3.3	0
115	Cerebrospinal fluid secretion. Clinical and Experimental Ophthalmology, 2010, , .	2.6	0
116	Development of the Bloodâ€šÃ„Ã¬Cerebrospinal Fluid Barrier. , 2005, , 3-24.		0
117	The Internal Environment of the Developing Brain. , 1991, , 1-28.		0