Anthony James Barkovich

List of Publications by Year
in descending order

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Version: 2024-02-01

135 papers	13,067 citations	31902 53 h-index	24179 110 g-index
136 all docs	136 docs citations	136 times ranked	15277 citing authors

#	Article	IF	Citations
1	Long-term cognitive outcomes in term newborns with watershed injury caused by neonatal encephalopathy. Pediatric Research, 2022, 92, 505-512.	1.1	10
2	The Effect of Size and Asymmetry at Birth on Brain Injury and Neurodevelopmental Outcomes in Congenital Heart Disease. Pediatric Cardiology, 2022, 43, 868-877.	0.6	7
3	A proposed magnetic resonance imaging grading system for the spectrum of central neonatal parasagittal hypoxicâ€“ischaemic brain injury. Insights Into Imaging, 2022, 13, 11.	1.6	4
4	Cyto/myeloarchitecture of cortical gray matter and superficial white matter in early neurodevelopment: multimodal MRI study in preterm neonates. Cerebral Cortex, 2022, 33, 357-373.	1.6	3
5	Monoallelic and biallelic mutations inRELNunderlie a graded series of neurodevelopmental disorders. Brain, 2022, 145, 3274-3287.	3.7	6
6	Thalamus L-Sign: A Potential Biomarker of Neonatal Partial, Prolonged Hypoxic-Ischemic Brain Injury or Hypoglycemic Encephalopathy?. American Journal of Neuroradiology, 2022, 43, 919-925.	1.2	4
7	Bronchopulmonary dysplasia precursors influence risk of white matter injury and adverse neurodevelopmental outcome in preterm infants. Pediatric Research, 2021, 90, 359-365.	1.1	14
8	Fetal brain growth and risk of postnatal white matter injury in critical congenital heart disease. Journal of Thoracic and Cardiovascular Surgery, 2021, 162, 1007-1014.e1.	0.4	24
9	Misleading Public Statements About COVID-19. Journal of the American College of Radiology, 2021, 18, 6-7.	0.9	0
10	Congenital Visual Field Loss from a Schizencephalic Cleft Damaging Meyerâ€™s Loop. Neuro-Ophthalmology, 2021, 45, 277-280.	0.4	0
11	Robust Cortical Thickness Morphometry of Neonatal Brain and Systematic Evaluation Using Multi-Site MRI Datasets. Frontiers in Neuroscience, 2021, 15, 650082.	1.4	10
12	Early Identification of Cerebral Palsy Using Neonatal MRI and General Movements Assessment in a Cohort of High-Risk Term Neonates. Pediatric Neurology, 2021, 118, 20-25.	1.0	19
13	Early role for a Na ⁺ ,K ⁺ -ATPase (ATP1A3) in brain development. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	20
14	Early Magnetic Resonance Imaging Predicts 30-Month Outcomes after Therapeutic Hypothermia for Neonatal Encephalopathy. Journal of Pediatrics, 2021, 238, 94-101.e1.	0.9	14
15	Technical and practical tips for performing brain magnetic resonance imaging in premature neonates. Seminars in Perinatology, 2021, 45, 151468.	1.1	2
16	A Web-based System to Assist With Etiology Differential Diagnosis in Children With Arterial Ischemic Stroke. Topics in Magnetic Resonance Imaging, 2021, 30, 253-257.	0.7	1
17	Neuroimaging in the term newborn with neonatal encephalopathy. Seminars in Fetal and Neonatal Medicine, 2021, 26, 101304.	1.1	21
18	Disruption and Compensation of Sulcation-based Covariance Networks in Neonatal Brain Growth after Perinatal Injury. Cerebral Cortex, 2020, 30, 6238-6253.	1.6	19

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19	De novo variants in SUPT16H cause neurodevelopmental disorders associated with corpus callosum abnormalities. Journal of Medical Genetics, 2020, 57, 461-465.	1.5	7
20	A Metabolomics Study of Hypoxia Ischemia during Mouse Brain Development Using Hyperpolarized ¹³C. Developmental Neuroscience, 2020, 42, 49-58.	1.0	8
21	Pathogenic DDX3X Mutations Impair RNA Metabolism and Neurogenesis during Fetal Cortical Development. Neuron, 2020, 106, 404-420.e8.	3.8	121
22	Posterior Neocortex-Specific Regulation of Neuronal Migration by CEP85L Identifies Maternal Centriole-Dependent Activation of CDK5. Neuron, 2020, 106, 246-255.e6.	3.8	19
23	Regulation of human cerebral cortical development by EXOC7 and EXOC8, components of the exocyst complex, and roles in neural progenitor cell proliferation and survival. Genetics in Medicine, 2020, 22, 1040-1050.	1.1	13
24	White matter injury in term neonates with congenital heart diseases: Topology & comparison with preterm newborns. NeuroImage, 2019, 185, 742-749.	2.1	60
25	Long-Term Safety, Immunologic Response, and Imaging Outcomes following Neural Stem Cell Transplantation for Pelizaeus-Merzbacher Disease. Stem Cell Reports, 2019, 13, 254-261.	2.3	34
26	Cerebellar hypoplasia of prematurity: Causes and consequences. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2019, 162, 201-216.	1.0	18
27	Early changes in pro-inflammatory cytokine levels in neonates with encephalopathy are associated with remote epilepsy. Pediatric Research, 2019, 86, 616-621.	1.1	23
28	MR Imaging of Normal Brain Development. Neuroimaging Clinics of North America, 2019, 29, 325-337.	0.5	12
29	Redefining the Etiologic Landscape of Cerebellar Malformations. American Journal of Human Genetics, 2019, 105, 606-615.	2.6	61
30	Imaging of the Newborn Brain. Seminars in Pediatric Neurology, 2019, 32, 100766.	1.0	3
31	Autism and developmental disability caused by KCNQ3 gainâ€ofâ€function variants. Annals of Neurology, 2019, 86, 181-192.	2.8	73
32	Subcortical heterotopic gray matter brain malformations. Neurology, 2019, 93, e1360-e1373.	1.5	33
33	Plasma cholesterol levels and brain development in preterm newborns. Pediatric Research, 2019, 85, 299-304.	1.1	4
34	Challenges in pediatric neuroimaging. NeuroImage, 2019, 185, 793-801.	2.1	54
35	CXCR4 involvement in neurodegenerative diseases. Translational Psychiatry, 2018, 8, 73.	2.4	66
36	Neonatal Brain Injury and Timing of Neurodevelopmental Assessment in Patients With Congenital Heart Disease. Journal of the American College of Cardiology, 2018, 71, 1986-1996.	1.2	83

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37	Association of Histologic Chorioamnionitis With Perinatal Brain Injury and Early Childhood Neurodevelopmental Outcomes Among Preterm Neonates. JAMA Pediatrics, 2018, 172, 534.	3.3	55
38	Pediatric neuro MRI: tricks to minimize sedation. Pediatric Radiology, 2018, 48, 50-55.	1.1	53
39	Quantitative surface analysis of combined MRI and PET enhances detection of focal cortical dysplasias. NeuroImage, 2018, 166, 10-18.	2.1	49
40	The association between cardiac physiology, acquired brain injury, and postnatal brain growth in critical congenital heart disease. Journal of Thoracic and Cardiovascular Surgery, 2018, 155, 291-300.e3.	0.4	61
41	Postnatal polyunsaturated fatty acids associated with larger preterm brain tissue volumes and better outcomes. Pediatric Research, 2018, 83, 93-101.	1.1	19
42	PSMD12 haploinsufficiency in a neurodevelopmental disorder with autistic features. American Journal of Medical Genetics Part B: Neuropsychiatric Genetics, 2018, 177, 736-745.	1.1	23
43	Expanding the Distinctive Neuroimaging Phenotype of ACTA2 Mutations. American Journal of Neuroradiology, 2018, 39, 2126-2131.	1.2	24
44	Aberrant Structural Brain Connectivity in Adolescents with Attentional Problems Who Were Born Prematurely. American Journal of Neuroradiology, 2018, 39, 2140-2147.	1.2	5
45	Regionally specific TSC1 and TSC2 gene expression in tuberous sclerosis complex. Scientific Reports, 2018, 8, 13373.	1.6	13
46	Abnormal Morphology of Select Cortical and Subcortical Regions in Neurofibromatosis Type 1. Radiology, 2018, 289, 499-508.	3.6	12
47	New insights into neurocutaneous melanosis. Pediatric Radiology, 2018, 48, 1786-1796.	1.1	39
48	Sodium Channel SCN3A (NaV1.3) Regulation of Human Cerebral Cortical Folding and Oral Motor Development. Neuron, 2018, 99, 905-913.e7.	3.8	109
49	Characterization of Death in Neonatal Encephalopathy in the Hypothermia Era. Journal of Child Neurology, 2017, 32, 360-365.	0.7	22
50	Shared genetic risk between corticobasal degeneration, progressive supranuclear palsy, and frontotemporal dementia. Acta Neuropathologica, 2017, 133, 825-837.	3.9	90
51	Biallelic mutations in human DCC cause developmental split-brain syndrome. Nature Genetics, 2017, 49, 606-612.	9.4	62
52	Identification of a novel CNTNAP1 mutation causing arthrogryposis multiplex congenita with cerebral and cerebellar atrophy. European Journal of Medical Genetics, 2017, 60, 245-249.	0.7	20
53	Lissencephaly: Expanded imaging and clinical classification. American Journal of Medical Genetics, Part A, 2017, 173, 1473-1488.	0.7	104
54	Deficient activity of alanyl-tRNA synthetase underlies an autosomal recessive syndrome of progressive microcephaly, hypomyelination, and epileptic encephalopathy. Human Mutation, 2017, 38, 1348-1354.	1.1	40

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55	Integrated genome and transcriptome sequencing identifies a noncoding mutation in the genome replication factor DONSON as the cause of microcephaly-micromelia syndrome. Genome Research, 2017, 27, 1323-1335.	2.4	40
56	Early changes in brain structure correlate with language outcomes in children with neonatal encephalopathy. NeuroImage: Clinical, 2017, 15, 572-580.	1.4	27
57	Hazards of Neurological Nomenclature. JAMA Neurology, 2017, 74, 1165.	4.5	5
58	Microstructure of the Default Mode Network in Preterm Infants. American Journal of Neuroradiology, 2017, 38, 343-348.	1.2	17
59	Somatic Mutations Activating the mTOR Pathway in Dorsal Telencephalic Progenitors Cause a Continuum of Cortical Dysplasias. Cell Reports, 2017, 21, 3754-3766.	2.9	247
60	Clinical and Imaging Characteristics of Arteriopathy Subtypes in Children with Arterial Ischemic Stroke: Results of the VIPS Study. American Journal of Neuroradiology, 2017, 38, 2172-2179.	1.2	89
61	Disorders of Microtubule Function in Neurons: Imaging Correlates. American Journal of Neuroradiology, 2016, 37, 528-535.	1.2	56
62	Novel lossâ€ofâ€function variants in DIAPH1 associated with syndromic microcephaly, blindness, and early onset seizures. American Journal of Medical Genetics, Part A, 2016, 170, 435-440.	0.7	36
63	Hindbrain regional growth in preterm newborns and its impairment in relation to brain injury. Human Brain Mapping, 2016, 37, 678-688.	1.9	29
64	De Novo Mutations of RERE Cause a Genetic Syndrome with Features that Overlap Those Associated with Proximal 1p36 Deletions. American Journal of Human Genetics, 2016, 98, 963-970.	2.6	67
65	The Contribution of the Corpus Callosum to Language Lateralization. Journal of Neuroscience, 2016, 36, 4522-4533.	1.7	77
66	Mutations in mitochondrial enzyme GPT2 cause metabolic dysfunction and neurological disease with developmental and progressive features. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E5598-607.	3.3	51
67	Astroglial-Mediated Remodeling of the Interhemispheric Midline Is Required for the Formation of the Corpus Callosum. Cell Reports, 2016, 17, 735-747.	2.9	64
68	Antenatal Exposure to Magnesium Sulfate Is Associated with Reduced Cerebellar Hemorrhage in Preterm Newborns. Journal of Pediatrics, 2016, 178, 68-74.	0.9	52
69	Surgical management of medically refractory epilepsy in patients with polymicrogyria. Epilepsia, 2016, 57, 151-161.	2.6	28
70	Malformations of cortical development. Annals of Neurology, 2016, 80, 797-810.	2.8	95
71	Reprint of â€œHypomyelinating disorders: An MRI approach. Neurobiology of Disease, 2016, 92, 46-54.	2.1	11
72	NEOCIVET: Towards accurate morphometry of neonatal gyrification and clinical applications in preterm newborns. NeuroImage, 2016, 138, 28-42.	2.1	37

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73	Microstructural maturation of white matter tracts in encephalopathic neonates. Clinical Imaging, 2016, 40, 1009-1013.	0.8	6
74	Risk of Recurrent Arterial Ischemic Stroke in Childhood. Stroke, 2016, 47, 53-59.	1.0	138
75	Early postnatal docosahexaenoic acid levels and improved preterm brain development. Pediatric Research, 2016, 79, 723-730.	1.1	84
76	De novo PIK3R2 variant causes polymicrogyria, corpus callosum hyperplasia and focal cortical dysplasia. European Journal of Human Genetics, 2016, 24, 1359-1362.	1.4	26
77	Association of Prenatal Diagnosis of Critical Congenital Heart Disease With Postnatal Brain Development and the Risk of Brain Injury. JAMA Pediatrics, 2016, 170, e154450.	3.3	117
78	Hypomyelinating disorders: An MRI approach. Neurobiology of Disease, 2016, 87, 50-58.	2.1	26
79	Impaired cognitive performance in premature newborns with two or more surgeries prior to term-equivalent age. Pediatric Research, 2015, 78, 323-329.	1.1	32
80	Mammalian target of rapamycin pathway mutations cause hemimegalencephaly and focal cortical dysplasia. Annals of Neurology, 2015, 77, 720-725.	2.8	235
81	An siRNA-based functional genomics screen for theÂidentification of regulators of ciliogenesis and ciliopathyÂgenes. Nature Cell Biology, 2015, 17, 1074-1087.	4.6	215
82	Mutations in PYCR2, Encoding Pyrroline-5-Carboxylate Reductase 2, Cause Microcephaly and Hypomyelination. American Journal of Human Genetics, 2015, 96, 709-719.	2.6	60
83	Malformations of Cortical Development and Epilepsy. Cold Spring Harbor Perspectives in Medicine, 2015, 5, a022392-a022392.	2.9	104
84	Disrupted glutamate-glutamine cycle in acute encephalopathy with biphasic seizures and late reduced diffusion. Neuroradiology, 2015, 57, 1163-1168.	1.1	39
85	De novo mutations in KIF1A cause progressive encephalopathy and brain atrophy. Annals of Clinical and Translational Neurology, 2015, 2, 623-635.	1.7	96
86	Infection, vaccination, and childhood arterial ischemic stroke. Neurology, 2015, 85, 1459-1466.	1.5	100
87	Diminished White Matter Injury over Time in a Cohort of PrematureÂNewborns. Journal of Pediatrics, 2015, 166, 39-43.	0.9	53
88	Arteriopathy Diagnosis in Childhood Arterial Ischemic Stroke. Stroke, 2014, 45, 3597-3605.	1.0	130
89	Hypomyelinating leukodystrophies: Translational research progress and prospects. Annals of Neurology, 2014, 76, 5-19.	2.8	132
90	Neurochemistry in shiverer mouse depicted on MR spectroscopy. Journal of Magnetic Resonance Imaging, 2014, 39, 1550-1557.	1.9	10

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91	The Developmental Brain Disorders Database (DBDB): A curated neurogenetics knowledge base with clinical and research applications. American Journal of Medical Genetics, Part A, 2014, 164, 1503-1511.	0.7	20
92	Maternal or neonatal infection: association with neonatal encephalopathy outcomes. Pediatric Research, 2014, 76, 93-99.	1.1	45
93	Different patterns of cerebellar abnormality and hypomyelination between POLR3A and POLR3B mutations. Brain and Development, 2014, 36, 259-263.	0.6	21
94	Clinical, genetic and imaging findings identify new causes for corpus callosum development syndromes. Brain, 2014, 137, 1579-1613.	3.7	278
95	Brain without Anatomy: Construction and Comparison of Fully Network-Driven Structural MRI Connectomes. PLoS ONE, 2014, 9, e96196.	1.1	23
96	Brain injury and development in newborns with critical congenital heart disease. Neurology, 2013, 81, 241-248.	1.5	191
97	Transmantle sign in focal cortical dysplasia: a unique radiological entity with excellent prognosis for seizure control. Journal of Neurosurgery, 2013, 118, 337-344.	0.9	47
98	A Machine Learning Approach to Automated Structural Network Analysis: Application to Neonatal Encephalopathy. PLoS ONE, 2013, 8, e78824.	1.1	23
99	Schizencephaly. Journal of Child Neurology, 2013, 28, 198-203.	0.7	30
100	Somatic Activation of AKT3 Causes Hemispheric Developmental Brain Malformations. Neuron, 2012, 74, 41-48.	3.8	413
101	Neural Stem Cell Engraftment and Myelination in the Human Brain. Science Translational Medicine, 2012, 4, 155ra137.	5.8	238
102	A developmental and genetic classification for malformations of cortical development: update 2012. Brain, 2012, 135, 1348-1369.	3.7	849
103	Developmental disorders of the midbrain and hindbrain. Frontiers in Neuroanatomy, 2012, 6, 7.	0.9	40
104	Increased Nâ€acetylaspartate in model mouse of pelizaeusâ€merzbacher disease. Journal of Magnetic Resonance Imaging, 2012, 35, 418-425.	1.9	12
105	The clinicopathologic spectrum of focal cortical dysplasias: A consensus classification proposed by an ad hoc Task Force of the ILAE Diagnostic Methods Commission1. Epilepsia, 2011, 52, 158-174.	2.6	1,454
106	Cerebellar Hemorrhage on Magnetic Resonance Imaging in Preterm Newborns Associated with Abnormal Neurologic Outcome. Journal of Pediatrics, 2011, 158, 245-250.	0.9	124
107	Current concepts of polymicrogyria. Neuroradiology, 2010, 52, 479-487.	1.1	117
108	MRI analysis of sulcation morphology in polymicrogyria. Epilepsia, 2010, 51, 17-22.	2.6	37

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109	Mutations in PNKP cause microcephaly, seizures and defects in DNA repair. Nature Genetics, 2010, 42, 245-249.	9.4	268
110	Mutations in WDR62, encoding a centrosome-associated protein, cause microcephaly with simplified gyri and abnormal cortical architecture. Nature Genetics, 2010, 42, 1015-1020.	9.4	259
111	Brain involvement in muscular dystrophies with defective dystroglycan glycosylation. Annals of Neurology, 2008, 64, 573-582.	2.8	172
112	Temporal and Anatomic Risk Profile of Brain Injury With Neonatal Repair of Congenital Heart Defects. Stroke, 2007, 38, 736-741.	1.0	336
113	Abnormal Brain Development in Newborns with Congenital Heart Disease. New England Journal of Medicine, 2007, 357, 1928-1938.	13.9	734
114	ComprehensiveEMX2genotyping of a large schizencephaly case series. American Journal of Medical Genetics, Part A, 2007, 143A, 1313-1316.	0.7	46
115	A developmental classification of malformations of the brainstem. Annals of Neurology, 2007, 62, 625-639.	2.8	75
116	Magnetic resonance imaging confirms periventricular venous infarction in a term-born child with congenital hemiplegia. Developmental Medicine and Child Neurology, 2007, 47, 706-708.	1.1	1
117	Anomalies of the Corpus Callosum: An MR Analysis of the Phenotypic Spectrum of Associated Malformations. American Journal of Roentgenology, 2006, 187, 1343-1348.	1.0	162
118	Genotype-phenotype analysis of human frontoparietal polymicrogyria syndromes. Annals of Neurology, 2005, 58, 680-687.	2.8	124
119	Comparing microstructural and macrostructural development of the cerebral cortex in premature newborns: Diffusion tensor imaging versus cortical gyration. NeuroImage, 2005, 27, 579-586.	2.1	130
120	Patterns of brain injury in term neonatal encephalopathy. Journal of Pediatrics, 2005, 146, 453-460.	0.9	487
121	Molar tooth sign of the midbrain-hindbrain junction: Occurrence in multiple distinct syndromes. American Journal of Medical Genetics Part A, 2004, 125A, 125-134.	2.4	213
122	Neuroimaging in disorders of cortical development. Neuroimaging Clinics of North America, 2004, 14, 231-254.	0.5	28
123	Comparing the diagnosis of white matter injury in premature newborns with serial MR imaging and transfontanel ultrasonography findings. American Journal of Neuroradiology, 2003, 24, 1661-9.	1.2	204
124	Serial quantitative diffusion tensor MRI of the premature brain: Development in newborns with and without injury. Journal of Magnetic Resonance Imaging, 2002, 16, 621-632.	1.9	305
125	Magnetic resonance imaging compatible neonate incubator. Concepts in Magnetic Resonance, 2002, 15, 117-128.	1.3	52
126	The middle interhemispheric variant of holoprosencephaly. American Journal of Neuroradiology, 2002, 23, 151-6.	1.2	122

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127	Analysis of the cerebral cortex in holoprosencephaly with attention to the sylvian fissures. American Journal of Neuroradiology, 2002, 23, 143-50.	1.2	35
128	Gray matter heterotopia. Neurology, 2000, 55, 1603-1608.	1.5	166
129	Systemic spread of meconium peritonitis. Pediatric Radiology, 1998, 28, 714-716.	1.1	13
130	Focal transmantle dysplasia: A specific malformation of cortical development. Neurology, 1997, 49, 1148-1152.	1.5	173
131	Neuroimaging in perinatal hypoxic-ischemic injury. Mental Retardation and Developmental Disabilities Research Reviews, 1997, 3, 28-41.	3.5	26
132	Identification of â€œPremyelinationâ€•by Diffusion-Weighted MRI. Journal of Computer Assisted Tomography, 1995, 19, 28-33.	0.5	313
133	Phased array detectors and an automated intensity-correction algorithm for high-resolution MR imaging of the human brain. Magnetic Resonance in Medicine, 1995, 34, 433-439.	1.9	126
134	Neurocutaneous Melanosis in Association with the Dandyâ€Walker Complex. Pediatric Dermatology, 1992, 9, 37-43.	0.5	105
135	The spectrum of lissencephaly: Report of ten patients analyzed by magnetic resonance imaging. Annals of Neurology, 1991, 30, 139-146.	2.8	129