

Anthony James Barkovich

List of Publications by Year in descending order

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Version: 2024-02-01

135
papers

13,067
citations

31976

53
h-index

24258

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. <i>Pediatric Research</i> , 2022, 92, 505-512.	2.3	10
2	The Effect of Size and Asymmetry at Birth on Brain Injury and Neurodevelopmental Outcomes in Congenital Heart Disease. <i>Pediatric Cardiology</i> , 2022, 43, 868-877.	1.3	7
3	A proposed magnetic resonance imaging grading system for the spectrum of central neonatal parasagittal hypoxic-ischaemic brain injury. <i>Insights Into Imaging</i> , 2022, 13, 11.	3.4	4
4	Cyto/myeloarchitecture of cortical gray matter and superficial white matter in early neurodevelopment: multimodal MRI study in preterm neonates. <i>Cerebral Cortex</i> , 2022, 33, 357-373.	2.9	3
5	Monoallelic and biallelic mutations in <i>RELN</i> underlie a graded series of neurodevelopmental disorders. <i>Brain</i> , 2022, 145, 3274-3287.	7.6	6
6	Thalamus L-Sign: A Potential Biomarker of Neonatal Partial, Prolonged Hypoxic-Ischemic Brain Injury or Hypoglycemic Encephalopathy?. <i>American Journal of Neuroradiology</i> , 2022, 43, 919-925.	2.4	4
7	Bronchopulmonary dysplasia precursors influence risk of white matter injury and adverse neurodevelopmental outcome in preterm infants. <i>Pediatric Research</i> , 2021, 90, 359-365.	2.3	14
8	Fetal brain growth and risk of postnatal white matter injury in critical congenital heart disease. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2021, 162, 1007-1014.e1.	0.8	24
9	Misleading Public Statements About COVID-19. <i>Journal of the American College of Radiology</i> , 2021, 18, 6-7.	1.8	0
10	Congenital Visual Field Loss from a Schizencephalic Cleft Damaging Meyer's Loop. <i>Neuro-Ophthalmology</i> , 2021, 45, 277-280.	1.0	0
11	Robust Cortical Thickness Morphometry of Neonatal Brain and Systematic Evaluation Using Multi-Site MRI Datasets. <i>Frontiers in Neuroscience</i> , 2021, 15, 650082.	2.8	10
12	Early Identification of Cerebral Palsy Using Neonatal MRI and General Movements Assessment in a Cohort of High-Risk Term Neonates. <i>Pediatric Neurology</i> , 2021, 118, 20-25.	2.1	19
13	Early role for a Na ⁺ ,K ⁺ -ATPase (<i>ATP1A3</i>) in brain development. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	20
14	Early Magnetic Resonance Imaging Predicts 30-Month Outcomes after Therapeutic Hypothermia for Neonatal Encephalopathy. <i>Journal of Pediatrics</i> , 2021, 238, 94-101.e1.	1.8	14
15	Technical and practical tips for performing brain magnetic resonance imaging in premature neonates. <i>Seminars in Perinatology</i> , 2021, 45, 151468.	2.5	2
16	A Web-based System to Assist With Etiology Differential Diagnosis in Children With Arterial Ischemic Stroke. <i>Topics in Magnetic Resonance Imaging</i> , 2021, 30, 253-257.	1.2	1
17	Neuroimaging in the term newborn with neonatal encephalopathy. <i>Seminars in Fetal and Neonatal Medicine</i> , 2021, 26, 101304.	2.3	21
18	Disruption and Compensation of Sulcation-based Covariance Networks in Neonatal Brain Growth after Perinatal Injury. <i>Cerebral Cortex</i> , 2020, 30, 6238-6253.	2.9	19

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19	De novo variants in <i>SUPT16H</i> cause neurodevelopmental disorders associated with corpus callosum abnormalities. <i>Journal of Medical Genetics</i> , 2020, 57, 461-465.	3.2	7
20	A Metabolomics Study of Hypoxia Ischemia during Mouse Brain Development Using Hyperpolarized ^{13}C . <i>Developmental Neuroscience</i> , 2020, 42, 49-58.	2.0	8
21	Pathogenic DDX3X Mutations Impair RNA Metabolism and Neurogenesis during Fetal Cortical Development. <i>Neuron</i> , 2020, 106, 404-420.e8.	8.1	121
22	Posterior Neocortex-Specific Regulation of Neuronal Migration by CEP85L Identifies Maternal Centriole-Dependent Activation of CDK5. <i>Neuron</i> , 2020, 106, 246-255.e6.	8.1	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. <i>Genetics in Medicine</i> , 2020, 22, 1040-1050.	2.4	13
24	White matter injury in term neonates with congenital heart diseases: Topology & comparison with preterm newborns. <i>NeuroImage</i> , 2019, 185, 742-749.	4.2	60
25	Long-Term Safety, Immunologic Response, and Imaging Outcomes following Neural Stem Cell Transplantation for Pelizaeus-Merzbacher Disease. <i>Stem Cell Reports</i> , 2019, 13, 254-261.	4.8	34
26	Cerebellar hypoplasia of prematurity: Causes and consequences. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2019, 162, 201-216.	1.8	18
27	Early changes in pro-inflammatory cytokine levels in neonates with encephalopathy are associated with remote epilepsy. <i>Pediatric Research</i> , 2019, 86, 616-621.	2.3	23
28	MR Imaging of Normal Brain Development. <i>Neuroimaging Clinics of North America</i> , 2019, 29, 325-337.	1.0	12
29	Redefining the Etiologic Landscape of Cerebellar Malformations. <i>American Journal of Human Genetics</i> , 2019, 105, 606-615.	6.2	61
30	Imaging of the Newborn Brain. <i>Seminars in Pediatric Neurology</i> , 2019, 32, 100766.	2.0	3
31	Autism and developmental disability caused by <i>KCNQ3</i> gain-of-function variants. <i>Annals of Neurology</i> , 2019, 86, 181-192.	5.3	73
32	Subcortical heterotopic gray matter brain malformations. <i>Neurology</i> , 2019, 93, e1360-e1373.	1.1	33
33	Plasma cholesterol levels and brain development in preterm newborns. <i>Pediatric Research</i> , 2019, 85, 299-304.	2.3	4
34	Challenges in pediatric neuroimaging. <i>NeuroImage</i> , 2019, 185, 793-801.	4.2	54
35	CXCR4 involvement in neurodegenerative diseases. <i>Translational Psychiatry</i> , 2018, 8, 73.	4.8	66
36	Neonatal Brain Injury and Timing of Neurodevelopmental Assessment in Patients With Congenital Heart Disease. <i>Journal of the American College of Cardiology</i> , 2018, 71, 1986-1996.	2.8	83

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37	Association of Histologic Chorioamnionitis With Perinatal Brain Injury and Early Childhood Neurodevelopmental Outcomes Among Preterm Neonates. <i>JAMA Pediatrics</i> , 2018, 172, 534.	6.2	55
38	Pediatric neuro MRI: tricks to minimize sedation. <i>Pediatric Radiology</i> , 2018, 48, 50-55.	2.0	53
39	Quantitative surface analysis of combined MRI and PET enhances detection of focal cortical dysplasias. <i>NeuroImage</i> , 2018, 166, 10-18.	4.2	49
40	The association between cardiac physiology, acquired brain injury, and postnatal brain growth in critical congenital heart disease. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018, 155, 291-300.e3.	0.8	61
41	Postnatal polyunsaturated fatty acids associated with larger preterm brain tissue volumes and better outcomes. <i>Pediatric Research</i> , 2018, 83, 93-101.	2.3	19
42	<i>PSMD12</i> haploinsufficiency in a neurodevelopmental disorder with autistic features. <i>American Journal of Medical Genetics Part B: Neuropsychiatric Genetics</i> , 2018, 177, 736-745.	1.7	23
43	Expanding the Distinctive Neuroimaging Phenotype of <i>ACTA2</i> Mutations. <i>American Journal of Neuroradiology</i> , 2018, 39, 2126-2131.	2.4	24
44	Aberrant Structural Brain Connectivity in Adolescents with Attentional Problems Who Were Born Prematurely. <i>American Journal of Neuroradiology</i> , 2018, 39, 2140-2147.	2.4	5
45	Regionally specific <i>TSC1</i> and <i>TSC2</i> gene expression in tuberous sclerosis complex. <i>Scientific Reports</i> , 2018, 8, 13373.	3.3	13
46	Abnormal Morphology of Select Cortical and Subcortical Regions in Neurofibromatosis Type 1. <i>Radiology</i> , 2018, 289, 499-508.	7.3	12
47	New insights into neurocutaneous melanosis. <i>Pediatric Radiology</i> , 2018, 48, 1786-1796.	2.0	39
48	Sodium Channel <i>SCN3A</i> (NaV1.3) Regulation of Human Cerebral Cortical Folding and Oral Motor Development. <i>Neuron</i> , 2018, 99, 905-913.e7.	8.1	109
49	Characterization of Death in Neonatal Encephalopathy in the Hypothermia Era. <i>Journal of Child Neurology</i> , 2017, 32, 360-365.	1.4	22
50	Shared genetic risk between corticobasal degeneration, progressive supranuclear palsy, and frontotemporal dementia. <i>Acta Neuropathologica</i> , 2017, 133, 825-837.	7.7	90
51	Biallelic mutations in human <i>DCC</i> cause developmental split-brain syndrome. <i>Nature Genetics</i> , 2017, 49, 606-612.	21.4	62
52	Identification of a novel <i>CNTNAP1</i> mutation causing arthrogryposis multiplex congenita with cerebral and cerebellar atrophy. <i>European Journal of Medical Genetics</i> , 2017, 60, 245-249.	1.3	20
53	Lissencephaly: Expanded imaging and clinical classification. <i>American Journal of Medical Genetics, Part A</i> , 2017, 173, 1473-1488.	1.2	104
54	Deficient activity of alanyl-tRNA synthetase underlies an autosomal recessive syndrome of progressive microcephaly, hypomyelination, and epileptic encephalopathy. <i>Human Mutation</i> , 2017, 38, 1348-1354.	2.5	40

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55	Integrated genome and transcriptome sequencing identifies a noncoding mutation in the genome replication factor <i>DONSON</i> as the cause of microcephaly-micromelia syndrome. <i>Genome Research</i> , 2017, 27, 1323-1335.	5.5	40
56	Early changes in brain structure correlate with language outcomes in children with neonatal encephalopathy. <i>NeuroImage: Clinical</i> , 2017, 15, 572-580.	2.7	27
57	Hazards of Neurological Nomenclature. <i>JAMA Neurology</i> , 2017, 74, 1165.	9.0	5
58	Microstructure of the Default Mode Network in Preterm Infants. <i>American Journal of Neuroradiology</i> , 2017, 38, 343-348.	2.4	17
59	Somatic Mutations Activating the mTOR Pathway in Dorsal Telencephalic Progenitors Cause a Continuum of Cortical Dysplasias. <i>Cell Reports</i> , 2017, 21, 3754-3766.	6.4	247
60	Clinical and Imaging Characteristics of Arteriopathy Subtypes in Children with Arterial Ischemic Stroke: Results of the VIPS Study. <i>American Journal of Neuroradiology</i> , 2017, 38, 2172-2179.	2.4	89
61	Disorders of Microtubule Function in Neurons: Imaging Correlates. <i>American Journal of Neuroradiology</i> , 2016, 37, 528-535.	2.4	56
62	Novel loss-of-function variants in <i>DIAPH1</i> associated with syndromic microcephaly, blindness, and early onset seizures. <i>American Journal of Medical Genetics, Part A</i> , 2016, 170, 435-440.	1.2	36
63	Hindbrain regional growth in preterm newborns and its impairment in relation to brain injury. <i>Human Brain Mapping</i> , 2016, 37, 678-688.	3.6	29
64	De Novo Mutations of RERE Cause a Genetic Syndrome with Features that Overlap Those Associated with Proximal 1p36 Deletions. <i>American Journal of Human Genetics</i> , 2016, 98, 963-970.	6.2	67
65	The Contribution of the Corpus Callosum to Language Lateralization. <i>Journal of Neuroscience</i> , 2016, 36, 4522-4533.	3.6	77
66	Mutations in mitochondrial enzyme GPT2 cause metabolic dysfunction and neurological disease with developmental and progressive features. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E5598-607.	7.1	51
67	Astroglial-Mediated Remodeling of the Interhemispheric Midline Is Required for the Formation of the Corpus Callosum. <i>Cell Reports</i> , 2016, 17, 735-747.	6.4	64
68	Antenatal Exposure to Magnesium Sulfate Is Associated with Reduced Cerebellar Hemorrhage in Preterm Newborns. <i>Journal of Pediatrics</i> , 2016, 178, 68-74.	1.8	52
69	Surgical management of medically refractory epilepsy in patients with polymicrogyria. <i>Epilepsia</i> , 2016, 57, 151-161.	5.1	28
70	Malformations of cortical development. <i>Annals of Neurology</i> , 2016, 80, 797-810.	5.3	95
71	Reprint of "Hypomyelinating disorders: An MRI approach. <i>Neurobiology of Disease</i> , 2016, 92, 46-54.	4.4	11
72	NEOCIVET: Towards accurate morphometry of neonatal gyrification and clinical applications in preterm newborns. <i>NeuroImage</i> , 2016, 138, 28-42.	4.2	37

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73	Microstructural maturation of white matter tracts in encephalopathic neonates. <i>Clinical Imaging</i> , 2016, 40, 1009-1013.	1.5	6
74	Risk of Recurrent Arterial Ischemic Stroke in Childhood. <i>Stroke</i> , 2016, 47, 53-59.	2.0	138
75	Early postnatal docosahexaenoic acid levels and improved preterm brain development. <i>Pediatric Research</i> , 2016, 79, 723-730.	2.3	84
76	De novo PIK3R2 variant causes polymicrogyria, corpus callosum hyperplasia and focal cortical dysplasia. <i>European Journal of Human Genetics</i> , 2016, 24, 1359-1362.	2.8	26
77	Association of Prenatal Diagnosis of Critical Congenital Heart Disease With Postnatal Brain Development and the Risk of Brain Injury. <i>JAMA Pediatrics</i> , 2016, 170, e154450.	6.2	117
78	Hypomyelinating disorders: An MRI approach. <i>Neurobiology of Disease</i> , 2016, 87, 50-58.	4.4	26
79	Impaired cognitive performance in premature newborns with two or more surgeries prior to term-equivalent age. <i>Pediatric Research</i> , 2015, 78, 323-329.	2.3	32
80	Mammalian target of rapamycin pathway mutations cause hemimegalencephaly and focal cortical dysplasia. <i>Annals of Neurology</i> , 2015, 77, 720-725.	5.3	235
81	An siRNA-based functional genomics screen for the identification of regulators of ciliogenesis and ciliopathy genes. <i>Nature Cell Biology</i> , 2015, 17, 1074-1087.	10.3	215
82	Mutations in PYCR2, Encoding Pyrroline-5-Carboxylate Reductase 2, Cause Microcephaly and Hypomyelination. <i>American Journal of Human Genetics</i> , 2015, 96, 709-719.	6.2	60
83	Malformations of Cortical Development and Epilepsy. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2015, 5, a022392-a022392.	6.2	104
84	Disrupted glutamate-glutamine cycle in acute encephalopathy with biphasic seizures and late reduced diffusion. <i>Neuroradiology</i> , 2015, 57, 1163-1168.	2.2	39
85	De novo mutations in KIF1A cause progressive encephalopathy and brain atrophy. <i>Annals of Clinical and Translational Neurology</i> , 2015, 2, 623-635.	3.7	96
86	Infection, vaccination, and childhood arterial ischemic stroke. <i>Neurology</i> , 2015, 85, 1459-1466.	1.1	100
87	Diminished White Matter Injury over Time in a Cohort of Premature Newborns. <i>Journal of Pediatrics</i> , 2015, 166, 39-43.	1.8	53
88	Arteriopathy Diagnosis in Childhood Arterial Ischemic Stroke. <i>Stroke</i> , 2014, 45, 3597-3605.	2.0	130
89	Hypomyelinating leukodystrophies: Translational research progress and prospects. <i>Annals of Neurology</i> , 2014, 76, 5-19.	5.3	132
90	Neurochemistry in shiverer mouse depicted on MR spectroscopy. <i>Journal of Magnetic Resonance Imaging</i> , 2014, 39, 1550-1557.	3.4	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.	1.2	20
92	Maternal or neonatal infection: association with neonatal encephalopathy outcomes. Pediatric Research, 2014, 76, 93-99.	2.3	45
93	Different patterns of cerebellar abnormality and hypomyelination between POLR3A and POLR3B mutations. Brain and Development, 2014, 36, 259-263.	1.1	21
94	Clinical, genetic and imaging findings identify new causes for corpus callosum development syndromes. Brain, 2014, 137, 1579-1613.	7.6	278
95	Brain without Anatomy: Construction and Comparison of Fully Network-Driven Structural MRI Connectomes. PLoS ONE, 2014, 9, e96196.	2.5	23
96	Brain injury and development in newborns with critical congenital heart disease. Neurology, 2013, 81, 241-248.	1.1	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.	1.6	47
98	A Machine Learning Approach to Automated Structural Network Analysis: Application to Neonatal Encephalopathy. PLoS ONE, 2013, 8, e78824.	2.5	23
99	Schizencephaly. Journal of Child Neurology, 2013, 28, 198-203.	1.4	30
100	Somatic Activation of AKT3 Causes Hemispheric Developmental Brain Malformations. Neuron, 2012, 74, 41-48.	8.1	413
101	Neural Stem Cell Engraftment and Myelination in the Human Brain. Science Translational Medicine, 2012, 4, 155ra137.	12.4	238
102	A developmental and genetic classification for malformations of cortical development: update 2012. Brain, 2012, 135, 1348-1369.	7.6	849
103	Developmental disorders of the midbrain and hindbrain. Frontiers in Neuroanatomy, 2012, 6, 7.	1.7	40
104	Increased <i>N</i> -acetylaspartate in model mouse of pelizaeusâ€™merzbacher disease. Journal of Magnetic Resonance Imaging, 2012, 35, 418-425.	3.4	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.	5.1	1,454
106	Cerebellar Hemorrhage on Magnetic Resonance Imaging in Preterm Newborns Associated with Abnormal Neurologic Outcome. Journal of Pediatrics, 2011, 158, 245-250.	1.8	124
107	Current concepts of polymicrogyria. Neuroradiology, 2010, 52, 479-487.	2.2	117
108	MRI analysis of sulcation morphology in polymicrogyria. Epilepsia, 2010, 51, 17-22.	5.1	37

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109	Mutations in PNKP cause microcephaly, seizures and defects in DNA repair. <i>Nature Genetics</i> , 2010, 42, 245-249.	21.4	268
110	Mutations in WDR62, encoding a centrosome-associated protein, cause microcephaly with simplified gyri and abnormal cortical architecture. <i>Nature Genetics</i> , 2010, 42, 1015-1020.	21.4	259
111	Brain involvement in muscular dystrophies with defective dystroglycan glycosylation. <i>Annals of Neurology</i> , 2008, 64, 573-582.	5.3	172
112	Temporal and Anatomic Risk Profile of Brain Injury With Neonatal Repair of Congenital Heart Defects. <i>Stroke</i> , 2007, 38, 736-741.	2.0	336
113	Abnormal Brain Development in Newborns with Congenital Heart Disease. <i>New England Journal of Medicine</i> , 2007, 357, 1928-1938.	27.0	734
114	ComprehensiveEMX2genotyping of a large schizencephaly case series. <i>American Journal of Medical Genetics, Part A</i> , 2007, 143A, 1313-1316.	1.2	46
115	A developmental classification of malformations of the brainstem. <i>Annals of Neurology</i> , 2007, 62, 625-639.	5.3	75
116	Magnetic resonance imaging confirms periventricular venous infarction in a term-born child with congenital hemiplegia. <i>Developmental Medicine and Child Neurology</i> , 2007, 47, 706-708.	2.1	1
117	Anomalies of the Corpus Callosum: An MR Analysis of the Phenotypic Spectrum of Associated Malformations. <i>American Journal of Roentgenology</i> , 2006, 187, 1343-1348.	2.2	162
118	Genotype-phenotype analysis of human frontoparietal polymicrogyria syndromes. <i>Annals of Neurology</i> , 2005, 58, 680-687.	5.3	124
119	Comparing microstructural and macrostructural development of the cerebral cortex in premature newborns: Diffusion tensor imaging versus cortical gyration. <i>NeuroImage</i> , 2005, 27, 579-586.	4.2	130
120	Patterns of brain injury in term neonatal encephalopathy. <i>Journal of Pediatrics</i> , 2005, 146, 453-460.	1.8	487
121	Molar tooth sign of the midbrain-hindbrain junction: Occurrence in multiple distinct syndromes. <i>American Journal of Medical Genetics Part A</i> , 2004, 125A, 125-134.	2.4	213
122	Neuroimaging in disorders of cortical development. <i>Neuroimaging Clinics of North America</i> , 2004, 14, 231-254.	1.0	28
123	Comparing the diagnosis of white matter injury in premature newborns with serial MR imaging and transfontanel ultrasonography findings. <i>American Journal of Neuroradiology</i> , 2003, 24, 1661-9.	2.4	204
124	Serial quantitative diffusion tensor MRI of the premature brain: Development in newborns with and without injury. <i>Journal of Magnetic Resonance Imaging</i> , 2002, 16, 621-632.	3.4	305
125	Magnetic resonance imaging compatible neonate incubator. <i>Concepts in Magnetic Resonance</i> , 2002, 15, 117-128.	1.3	52
126	The middle interhemispheric variant of holoprosencephaly. <i>American Journal of Neuroradiology</i> , 2002, 23, 151-6.	2.4	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.	2.4	35
128	Gray matter heterotopia. Neurology, 2000, 55, 1603-1608.	1.1	166
129	Systemic spread of meconium peritonitis. Pediatric Radiology, 1998, 28, 714-716.	2.0	13
130	Focal transmantle dysplasia: A specific malformation of cortical development. Neurology, 1997, 49, 1148-1152.	1.1	173
131	Neuroimaging in perinatal hypoxic-ischemic injury. Mental Retardation and Developmental Disabilities Research Reviews, 1997, 3, 28-41.	3.6	26
132	Identification of "Premyelination" by Diffusion-Weighted MRI. Journal of Computer Assisted Tomography, 1995, 19, 28-33.	0.9	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.	3.0	126
134	Neurocutaneous Melanosis in Association with the Dandy-Walker Complex. Pediatric Dermatology, 1992, 9, 37-43.	0.9	105
135	The spectrum of lissencephaly: Report of ten patients analyzed by magnetic resonance imaging. Annals of Neurology, 1991, 30, 139-146.	5.3	129