

# Anne R Synnes

## List of Publications by Year in descending order

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Version: 2024-02-01

124  
papers

7,062  
citations

71102

41  
h-index

62596

80  
g-index

126  
all docs

126  
docs citations

126  
times ranked

5267  
citing authors

#	ARTICLE	IF	CITATIONS
1	Procedural pain and brain development in premature newborns. <i>Annals of Neurology</i> , 2012, 71, 385-396.	5.3	531
2	Variations in Practice and Outcomes in the Canadian NICU Network: 1996–1997. <i>Pediatrics</i> , 2000, 106, 1070-1079.	2.1	471
3	Neonatal pain, parenting stress and interaction, in relation to cognitive and motor development at 8 and 18 months in preterm infants. <i>Pain</i> , 2009, 143, 138-146.	4.2	399
4	Neonatal Pain-Related Stress Predicts Cortical Thickness at Age 7 Years in Children Born Very Preterm. <i>PLoS ONE</i> , 2013, 8, e76702.	2.5	213
5	Invasive Procedures in Preterm Children: Brain and Cognitive Development at School Age. <i>Pediatrics</i> , 2014, 133, 412-421.	2.1	204
6	Determinants of developmental outcomes in a very preterm Canadian cohort. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2017, 102, F235-F234.	2.8	196
7	Neonatal Outcomes of Very Low Birth Weight and Very Preterm Neonates: An International Comparison. <i>Journal of Pediatrics</i> , 2016, 177, 144-152.e6.	1.8	184
8	Abnormal brain maturation in preterm neonates associated with adverse developmental outcomes. <i>Neurology</i> , 2013, 81, 2082-2089.	1.1	183
9	Association Between Antibiotic Use and Neonatal Mortality and Morbidities in Very Low-Birth-Weight Infants Without Culture-Proven Sepsis or Necrotizing Enterocolitis. <i>JAMA Pediatrics</i> , 2016, 170, 1181.	6.2	183
10	Neonatal pain-related stress, functional cortical activity and visual-perceptual abilities in school-age children born at extremely low gestational age. <i>Pain</i> , 2013, 154, 1946-1952.	4.2	178
11	Early Procedural Pain Is Associated with Regionally-Specific Alterations in Thalamic Development in Preterm Neonates. <i>Journal of Neuroscience</i> , 2018, 38, 878-886.	3.6	168
12	Diagnosis and management of congenital diaphragmatic hernia: a clinical practice guideline. <i>Cmaj</i> , 2018, 190, E103-E112.	2.0	161
13	Effect of chorioamnionitis on brain development and injury in premature newborns. <i>Annals of Neurology</i> , 2009, 66, 155-164.	5.3	156
14	Slower Postnatal Growth Is Associated with Delayed Cerebral Cortical Maturation in Preterm Newborns. <i>Science Translational Medicine</i> , 2013, 5, 168ra8.	12.4	156
15	Smaller Cerebellar Growth and Poorer Neurodevelopmental Outcomes in Very Preterm Infants Exposed to Neonatal Morphine. <i>Journal of Pediatrics</i> , 2016, 172, 81-87.e2.	1.8	156
16	Postnatal infection is associated with widespread abnormalities of brain development in premature newborns. <i>Pediatric Research</i> , 2012, 71, 274-279.	2.3	147
17	Cortisol levels in former preterm children at school age are predicted by neonatal procedural pain-related stress. <i>Psychoneuroendocrinology</i> , 2015, 51, 151-163.	2.7	146
18	Neonatal pain in relation to postnatal growth in infants born very preterm. <i>Pain</i> , 2012, 153, 1374-1381.	4.2	134

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19	Midazolam dose correlates with abnormal hippocampal growth and neurodevelopmental outcome in preterm infants. <i>Annals of Neurology</i> , 2016, 79, 548-559.	5.3	129
20	Association of Socioeconomic Status and Brain Injury With Neurodevelopmental Outcomes of Very Preterm Children. <i>JAMA Network Open</i> , 2019, 2, e192914.	5.9	120
21	Quantitative assessment of white matter injury in preterm neonates. <i>Neurology</i> , 2017, 88, 614-622.	1.1	117
22	Neonatal Pain and Infection Relate to Smaller Cerebellum in Very Preterm Children at School Age. <i>Journal of Pediatrics</i> , 2015, 167, 292-298.e1.	1.8	115
23	Score for Neonatal Acute Physiology II and Neonatal Pain Predict Corticospinal Tract Development in Premature Newborns. <i>Pediatric Neurology</i> , 2013, 48, 123-129.e1.	2.1	108
24	Improving the quality of care for infants: a cluster randomized controlled trial. <i>Cmaj</i> , 2009, 181, 469-476.	2.0	103
25	Parent behaviors moderate the relationship between neonatal pain and internalizing behaviors at 18 months corrected age in children born very prematurely. <i>Pain</i> , 2013, 154, 1831-1839.	4.2	103
26	Neonatal Intensive Care Unit Characteristics Affect the Incidence of Severe Intraventricular Hemorrhage. <i>Medical Care</i> , 2006, 44, 754-759.	2.4	92
27	Early postnatal docosahexaenoic acid levels and improved preterm brain development. <i>Pediatric Research</i> , 2016, 79, 723-730.	2.3	84
28	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
29	Hippocampus, Amygdala, and Thalamus Volumes in Very Preterm Children at 8 Years: Neonatal Pain and Genetic Variation. <i>Frontiers in Behavioral Neuroscience</i> , 2019, 13, 51.	2.0	82
30	Tractography-Based Quantitation of Corticospinal Tract Development in Premature Newborns. <i>Journal of Pediatrics</i> , 2010, 156, 882-888.e1.	1.8	66
31	Head Growth Trajectory and Neurodevelopmental Outcomes in Preterm Neonates. <i>Pediatrics</i> , 2017, 140, .	2.1	66
32	Maternal morbidity and perinatal outcomes among women in rural versus urban areas. <i>Cmaj</i> , 2016, 188, E456-E465.	2.0	65
33	The minimally effective dose of sucrose for procedural pain relief in neonates: a randomized controlled trial. <i>BMC Pediatrics</i> , 2018, 18, 85.	1.7	63
34	Association of a quality improvement program with neonatal outcomes in extremely preterm infants: a prospective cohort study. <i>Cmaj</i> , 2014, 186, E485-E494.	2.0	62
35	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
36	Severe retinopathy of prematurity predicts delayed white matter maturation and poorer neurodevelopment. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2017, 102, F532-F537.	2.8	59

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37	Neurodevelopmental Outcomes of Infants Born at <29 Weeks of Gestation Admitted to Canadian Neonatal Intensive Care Units Based on Location of Birth. <i>Journal of Pediatrics</i> , 2018, 196, 31-37.e1.	1.8	59
38	Early Caffeine Administration and Neurodevelopmental Outcomes in Preterm Infants. <i>Pediatrics</i> , 2019, 143, .	2.1	59
39	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
40	Neurodevelopmental Outcomes of Preterm Children at School Age and Beyond. <i>Clinics in Perinatology</i> , 2018, 45, 393-408.	2.1	55
41	School Entry Age Outcomes for Infants with Birth Weight $\leq 800$ Grams. <i>Journal of Pediatrics</i> , 2010, 157, 989-994.e1.	1.8	53
42	Antenatal magnesium sulphate and adverse neonatal outcomes: A systematic review and meta-analysis. <i>PLoS Medicine</i> , 2019, 16, e1002988.	8.4	46
43	Effect of Maternal Docosahexaenoic Acid Supplementation on Bronchopulmonary Dysplasia—Free Survival in Breastfed Preterm Infants. <i>JAMA - Journal of the American Medical Association</i> , 2020, 324, 157.	7.4	43
44	Sensory Processing Patterns in Children Born Very Preterm. <i>American Journal of Occupational Therapy</i> , 2016, 70, 7001220050p1-7001220050p7.	0.3	43
45	Clinical Risk Factors for Punctate White Matter Lesions on Early Magnetic Resonance Imaging in Preterm Newborns. <i>Journal of Pediatrics</i> , 2017, 182, 34-40.e1.	1.8	36
46	Narcotics and Sedative Use in Preterm Neonates. <i>Journal of Pediatrics</i> , 2017, 180, 92-98.e1.	1.8	35
47	Association of Antibiotic Utilization and Neurodevelopmental Outcomes among Extremely Low Gestational Age Neonates without Proven Sepsis or Necrotizing Enterocolitis. <i>American Journal of Perinatology</i> , 2018, 35, 972-978.	1.4	35
48	Severe Neurodevelopmental Impairment in Neonates Born Preterm: Impact of Varying Definitions in a Canadian Cohort. <i>Journal of Pediatrics</i> , 2018, 197, 75-81.e4.	1.8	35
49	Association between corpus callosum development on magnetic resonance imaging and diffusion tensor imaging, and neurodevelopmental outcome in neonates born very preterm. <i>Developmental Medicine and Child Neurology</i> , 2017, 59, 433-440.	2.1	34
50	Automatic segmentation of the hippocampus for preterm neonates from early-in-life to term-equivalent age. <i>NeuroImage: Clinical</i> , 2015, 9, 176-193.	2.7	32
51	Predicting developmental outcomes in preterm infants. <i>Neurology</i> , 2019, 93, e1231-e1240.	1.1	32
52	Sustained quality improvement in outcomes of preterm neonates with a gestational age less than 29 weeks: results from the Evidence-based Practice for Improving Quality Phase 3. <i>Canadian Journal of Physiology and Pharmacology</i> , 2019, 97, 213-221.	1.4	31
53	Antenatal exposure to antidepressants is associated with altered brain development in very preterm-born neonates. <i>Neuroscience</i> , 2017, 342, 252-262.	2.3	29
54	Infants with Congenital Anomalies Admitted to Neonatal Intensive Care Units. <i>American Journal of Perinatology</i> , 2004, 21, 199-207.	1.4	28

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55	MAGnesium sulphate for fetal neuroprotection to prevent Cerebral Palsy (MAG-CP)â€™ implementation of a national guideline in Canada. <i>Implementation Science</i> , 2018, 13, 8.	6.9	28
56	Intrapartum magnesium sulfate and need for intensive delivery room resuscitation. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2015, 100, F59-F65.	2.8	26
57	Early Onset Invasive Candidiasis in Extremely Low Birth Weight Infants: Perinatal Acquisition Predicts Poor Outcome. <i>Clinical Infectious Diseases</i> , 2017, 64, cix001.	5.8	26
58	Mechanical Ventilation Duration, Brainstem Development, and Neurodevelopment in Children Born Preterm: A Prospective Cohort Study. <i>Journal of Pediatrics</i> , 2020, 226, 87-95.e3.	1.8	26
59	Family Integrated Care (FICare): Positive impact on behavioural outcomes at 18 months. <i>Early Human Development</i> , 2020, 151, 105196.	1.8	25
60	The Canadian Preterm Birth Network: a study protocol for improving outcomes for preterm infants and their families. <i>CMAJ Open</i> , 2018, 6, E44-E49.	2.4	24
61	Neurodevelopmental and growth outcomes of extremely preterm infants with necrotizing enterocolitis or spontaneous intestinal perforation. <i>Journal of Pediatric Surgery</i> , 2021, 56, 309-316.	1.6	24
62	Morphine biotransformation genes and neonatal clinical factors predicted behaviour problems in very preterm children at 18 months. <i>EBioMedicine</i> , 2019, 40, 655-662.	6.1	23
63	Temporal trends in neonatal mortality and morbidity following spontaneous and clinician-initiated preterm birth in Washington State, USA: a population-based study. <i>BMJ Open</i> , 2019, 9, e023004.	1.9	23
64	Maternal and Perinatal Outcomes of Pregnancies Delivered at 23 Weeksâ€™ Gestation. <i>Journal of Obstetrics and Gynaecology Canada</i> , 2015, 37, 214-224.	0.7	21
65	Multiple Postnatal Infections in Newborns Born Preterm Predict Delayed Maturation of Motor Pathways at Term-Equivalent Age with Poorer Motor Outcomes at 3 Years. <i>Journal of Pediatrics</i> , 2018, 196, 91-97.e1.	1.8	21
66	Association of admission temperature and death or adverse neurodevelopmental outcomes in extremely low-gestational age neonates. <i>Journal of Perinatology</i> , 2018, 38, 844-849.	2.0	21
67	Location and Size of Preterm Cerebellar Hemorrhage and Childhood Development. <i>Annals of Neurology</i> , 2020, 88, 1095-1108.	5.3	20
68	Family integrated care: very preterm neurodevelopmental outcomes at 18 months. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2022, 107, 76-81.	2.8	20
69	Invasive Fungal Infections in Neonates in Canada. <i>Pediatric Infectious Disease Journal</i> , 2018, 37, 1154-1159.	2.0	19
70	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
71	Effect of Magnesium Sulphate on Fetal Heart Rate Parameters: A Systematic Review. <i>Journal of Obstetrics and Gynaecology Canada</i> , 2014, 36, 1055-1064.	0.7	18
72	Stress in parents of children born very preterm is predicted by child externalising behaviour and parent coping at age 7 years. <i>Archives of Disease in Childhood</i> , 2015, 100, 554-558.	1.9	18

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73	Association of early skin breaks and neonatal thalamic maturation. <i>Neurology</i> , 2020, 95, e3420-e3427.	1.1	17
74	Parental perspective on important health outcomes of extremely preterm infants. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2022, 107, 495-500.	2.8	17
75	Does the Movement Assessment Battery for Children-2 at 3 years of age predict developmental coordination disorder at 4.5 years of age in children born very preterm?. <i>Research in Developmental Disabilities</i> , 2019, 84, 36-42.	2.2	16
76	Intrapartum magnesium sulfate is associated with neuroprotection in growth-restricted fetuses. <i>American Journal of Obstetrics and Gynecology</i> , 2018, 219, 606.e1-606.e8.	1.3	15
77	Extensive cardiopulmonary resuscitation of preterm neonates at birth and mortality and developmental outcomes. <i>Resuscitation</i> , 2019, 135, 57-65.	3.0	14
78	Neurologic Examination Findings Associated With Small Cerebellar Volumes After Prematurity. <i>Journal of Child Neurology</i> , 2019, 34, 586-592.	1.4	14
79	Sensory processing and cortisol at age 4 years: Procedural pain-related stress in children born very preterm. <i>Developmental Psychobiology</i> , 2021, 63, 915-930.	1.6	14
80	Predicting severe motor impairment in preterm children at age 5 years. <i>Archives of Disease in Childhood</i> , 2015, 100, 748-753.	1.9	13
81	Head circumference, total cerebral volume and neurodevelopment in preterm neonates. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2022, 107, 181-187.	2.8	13
82	Incidence and pattern of hearing impairment in children with <math>\leq 800\text{ g}</math> birthweight in British Columbia, Canada. <i>Acta Paediatrica, International Journal of Paediatrics</i> , 2012, 101, e48-54.	1.5	12
83	Oxygen Therapy for Preterm Neonates. <i>JAMA Pediatrics</i> , 2015, 169, 311.	6.2	12
84	Lower Maternal Chronic Physiological Stress and Better Child Behavior at 18 Months: Follow-Up of a Cluster Randomized Trial of Neonatal Intensive Care Unit Family Integrated Care. <i>Journal of Pediatrics</i> , 2022, 243, 107-115.e4.	1.8	12
85	Maternal High-Dose DHA Supplementation and Neurodevelopment at 18–22 Months of Preterm Children. <i>Pediatrics</i> , 2022, 150, .	2.1	12
86	Neonatal follow-up programs in Canada: A national survey. <i>Paediatrics and Child Health</i> , 2021, 26, e46-e51.	0.6	11
87	Neurodevelopmental outcomes of preterm infants conceived by assisted reproductive technology. <i>American Journal of Obstetrics and Gynecology</i> , 2021, 225, 276.e1-276.e9.	1.3	11
88	Current status of neonatal follow-up in Canada. <i>Paediatrics and Child Health</i> , 2006, 11, 271-4.	0.6	11
89	The Canadian Perinatal Network: A National Network Focused on Threatened Preterm Birth at 22 to 28 Weeks' Gestation. <i>Journal of Obstetrics and Gynaecology Canada</i> , 2011, 33, 111-120.	0.7	10
90	Magnesium Sulphate for Eclampsia and Fetal Neuroprotection: A Comparative Analysis of Protocols Across Canadian Tertiary Perinatal Centres. <i>Journal of Obstetrics and Gynaecology Canada</i> , 2015, 37, 975-987.	0.7	9

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91	Predictive connectome subnetwork extraction with anatomical and connectivity priors. <i>Computerized Medical Imaging and Graphics</i> , 2019, 71, 67-78.	5.8	9
92	Temporal Trends in Preterm Birth, Neonatal Mortality, and Neonatal Morbidity Following Spontaneous and Clinician-Initiated Delivery in Canada, 2009-2016. <i>Journal of Obstetrics and Gynaecology Canada</i> , 2019, 41, 1742-1751.e6.	0.7	9
93	Neonatal pain, thalamic development and sensory processing behaviour in children born very preterm. <i>Early Human Development</i> , 2022, 170, 105617.	1.8	9
94	Anticoagulation therapy and the risk of perioperative brain injury in neonates with congenital heart disease. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019, 157, 2406-2413.e2.	0.8	8
95	Fetal, Infant and Maternal Outcomes among Women with Prolapsed Membranes Admitted before 29 Weeks Gestation. <i>PLoS ONE</i> , 2016, 11, e0168285.	2.5	7
96	Survival, Short-Term, and Long-Term Morbidities of Neonates with Birth Weight <math>\leq 500</math> g. <i>American Journal of Perinatology</i> , 2017, 34, 1333-1339.	1.4	7
97	Neonatal outcomes of preterm twins according to mode of birth and presentation. <i>Journal of Maternal-Fetal and Neonatal Medicine</i> , 2018, 31, 682-688.	1.5	7
98	Outcomes after Neonatal Seizures in Infants Less Than 29 Weeks' Gestation: A Population-Based Cohort Study. <i>American Journal of Perinatology</i> , 2019, 36, 191-199.	1.4	7
99	Neurodevelopmental outcomes after neonatal caffeine therapy. <i>Seminars in Fetal and Neonatal Medicine</i> , 2020, 25, 101160.	2.3	7
100	Outcomes and resource usage of infants born at <math>\leq 25</math> weeks gestation in Canada. <i>Paediatrics and Child Health</i> , 2020, 25, 207-215.	0.6	6
101	Risk factors for re-hospitalization following neonatal discharge of extremely preterm infants in Canada. <i>Paediatrics and Child Health</i> , 2021, 26, e96-e104.	0.6	6
102	Mortality and significant neurosensory impairment in preterm infants: an international comparison. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2022, 107, 317-323.	2.8	6
103	Activated protein C as disease-modifying therapy in antenatal preeclampsia: An open-label, single arm safety and efficacy trial. <i>Pregnancy Hypertension</i> , 2018, 13, 121-126.	1.4	5
104	Concurrent Validity of the Bayley-III and the Peabody Developmental Motor Scales-2 at 18 Months. <i>Physical and Occupational Therapy in Pediatrics</i> , 2019, 39, 514-524.	1.3	5
105	Association between Transport Risk Index of Physiologic Stability in Extremely Premature Infants and Mortality or Neurodevelopmental Impairment at 18 to 24 Months. <i>Journal of Pediatrics</i> , 2020, 224, 51-56.e5.	1.8	5
106	Neurodevelopmental Outcomes of Infants at <math>\leq 29</math> Weeks of Gestation Born in Canada Between 2009 and 2016. <i>Journal of Pediatrics</i> , 2022, 247, 60-66.e1.	1.8	5
107	Low plasma magnesium is associated with impaired brain metabolism in neonates with hypoxic-ischaemic encephalopathy. <i>Acta Paediatrica, International Journal of Paediatrics</i> , 2016, 105, 1067-1073.	1.5	4
108	CHIPS-Child: Testing the developmental programming hypothesis in the offspring of the CHIPS trial. <i>Pregnancy Hypertension</i> , 2018, 14, 15-22.	1.4	4

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109	Coached, Coordinated, Enhanced Neonatal Transition (CCENT): protocol for a multicentre pragmatic randomised controlled trial of transition-to-home support for parents of high-risk infants. <i>BMJ Open</i> , 2021, 11, e046706.	1.9	4
110	Interaction between Preterm White Matter Injury and Childhood Thalamic Growth. <i>Annals of Neurology</i> , 2021, 90, 584-594.	5.3	4
111	Limb length shortening associated with femoral arterial lines in the neonatal period. <i>Paediatrics and Child Health</i> , 2013, 18, 194-196.	0.6	3
112	Screening for Neonatal Hypoglycemia After Fetal Exposure to $\beta$ -Blockers. <i>Pediatrics</i> , 2016, 138, .	2.1	3
113	Ventricular Volume in Infants Born Very Preterm: Relationship with Brain Maturation and Neurodevelopment at Age 4.5 Years. <i>Journal of Pediatrics</i> , 2022, 248, 51-58.e2.	1.8	3
114	Comparing Standardized and Parent-Reported Motor Outcomes of Extremely Preterm Infants. <i>Children</i> , 2019, 6, 90.	1.5	2
115	Maternal smoking and neurodevelopmental outcomes in infants <29 weeks gestation: a multicenter cohort study. <i>Journal of Perinatology</i> , 2019, 39, 791-799.	2.0	2
116	Neurodevelopmental outcomes of singleton large for gestational age infants <29 weeks gestation: a retrospective cohort study. <i>Journal of Perinatology</i> , 2021, 41, 1313-1321.	2.0	2
117	Parent-reported health status of preterm survivors in a Canadian cohort. <i>Archives of Disease in Childhood: Fetal and Neonatal Edition</i> , 2021, , fetalneonatal-2021-321635.	2.8	2
118	Preterm children with suspected cerebral palsy at 19 months corrected age in the Canadian neonatal follow-up network. <i>Early Human Development</i> , 2019, 136, 7-13.	1.8	1
119	Longitudinal neurodevelopmental outcomes in preterm twins. <i>Pediatric Research</i> , 2020, 90, 593-599.	2.3	1
120	Impact of Differing Language Background Exposures on Bayley-III Language Assessment in a National Cohort of Children Born Less than 29 Weeks Gestation. <i>Children</i> , 2022, 9, 1048.	1.5	1
121	ISDN2014_0066: Frontal brain activation, systemic cardiovascular and behavioral responses to heel lance in very preterm infants. <i>International Journal of Developmental Neuroscience</i> , 2015, 47, 15-15.	1.6	0
122	144 An Alternative Approach to Developing Guidelines for the Management of Infants Born at the Threshold of Viability. <i>Paediatrics and Child Health</i> , 2019, 24, e57-e58.	0.6	0
123	25 More than meets the eye: Parental perspectives on the health of their extremely preterm children when they reach 18 months, 5 and 7 years. <i>Paediatrics and Child Health</i> , 2020, 25, e9-e9.	0.6	0
124	MRI based radiomics enhances prediction of neurodevelopmental outcome in very preterm neonates. <i>Scientific Reports</i> , 2022, 12, .	3.3	0