Joseph Donnelly

List of Publications by Year
in descending order

134	3,848	117625	161849
papers	citations	34 h-index	54 g-index

137	137	137	2918
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrasound non-invasive measurement of intracranial pressure in neurointensive care: A prospective observational study. PLoS Medicine, 2017, 14, e1002356.	8.4	174
2	Non-invasive Monitoring of Intracranial Pressure Using Transcranial Doppler Ultrasonography: Is It Possible?. Neurocritical Care, 2016, 25, 473-491.	2.4	165
3	Regulation of the cerebral circulation: bedside assessment and clinical implications. Critical Care, 2016, 20, 129.	5.8	146
4	Individualizing Thresholds of Cerebral Perfusion Pressure Using Estimated Limits of Autoregulation. Critical Care Medicine, 2017, 45, 1464-1471.	0.9	116
5	Impaired cerebral autoregulation: measurement and application to stroke. Journal of Neurology, Neurosurgery and Psychiatry, 2017, 88, 520-531.	1.9	114
6	Non-invasive assessment of intracranial pressure. Acta Neurologica Scandinavica, 2016, 134, 4-21.	2.1	107
7	Feasibility of individualised severe traumatic brain injury management using an automated assessment of optimal cerebral perfusion pressure: the COGiTATE phase II study protocol. BMJ Open, 2019, 9, e030727.	1.9	94
8	Alterations in cerebral blood flow and cerebrovascular reactivity during 14 days at 5050 m. Journal of Physiology, 2011, 589, 741-753.	2.9	92
9	Twenty-Five Years of Intracranial Pressure Monitoring After Severe Traumatic Brain Injury: A Retrospective, Single-Center Analysis. Neurosurgery, 2019, 85, E75-E82.	1.1	92
10	Targeting Autoregulation-Guided Cerebral Perfusion Pressure after Traumatic Brain Injury (COGiTATE): A Feasibility Randomized Controlled Clinical Trial. Journal of Neurotrauma, 2021, 38, 2790-2800.	3.4	88
11	Effects of pneumoperitoneum and Trendelenburg position on intracranial pressure assessed using different non-invasive methods. British Journal of Anaesthesia, 2016, 117, 783-791.	3.4	81
12	Critical Thresholds of Intracranial Pressure-Derived Continuous Cerebrovascular Reactivity Indices for Outcome Prediction in Noncraniectomized Patients with Traumatic Brain Injury. Journal of Neurotrauma, 2018, 35, 1107-1115.	3.4	77
13	Prospective Study on Noninvasive Assessment of Intracranial Pressure in Traumatic Brain-Injured Patients: Comparison of Four Methods. Journal of Neurotrauma, 2016, 33, 792-802.	3.4	74
14	Conduit artery structure and function in lowlanders and native highlanders: relationships with oxidative stress and role of sympathoexcitation. Journal of Physiology, 2014, 592, 1009-1024.	2.9	71
15	Further understanding of cerebral autoregulation at the bedside: possible implications for future therapy. Expert Review of Neurotherapeutics, 2015, 15, 169-185.	2.8	70
16	Influence of high altitude on cerebrovascular and ventilatory responsiveness to CO₂. Journal of Physiology, 2010, 588, 539-549.	2.9	69
17	Comparison of Frequency and Time Domain Methods of Assessment of Cerebral Autoregulation in Traumatic Brain Injury. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 248-256.	4.3	69
18	Continuous Autoregulatory Indices Derived from Multi-Modal Monitoring: Each One Is Not Like the Other. Journal of Neurotrauma, 2017, 34, 3070-3080.	3.4	67

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19	Pressure Autoregulation Measurement Techniques in Adult Traumatic Brain Injury, Part II: A Scoping Review of Continuous Methods. Journal of Neurotrauma, 2017, 34, 3224-3237.	3.4	67
20	Autonomic Impairment in Severe Traumatic Brain Injury: A Multimodal Neuromonitoring Study. Critical Care Medicine, 2016, 44, 1173-1181.	0.9	61
21	Influence of high altitude on cerebral blood flow and fuel utilization during exercise and recovery. Journal of Physiology, 2014, 592, 5507-5527.	2.9	59
22	Temporal profile of intracranial pressure and cerebrovascular reactivity in severe traumatic brain injury and association with fatal outcome: An observational study. PLoS Medicine, 2017, 14, e1002353.	8.4	59
23	Impact of duration and magnitude of raised intracranial pressure on outcome after severe traumatic brain injury: A CENTER-TBI high-resolution group study. PLoS ONE, 2020, 15, e0243427.	2.5	58
24	Effects of Prone Position and Positive End-Expiratory Pressure on Noninvasive Estimators of ICP: A Pilot Study. Journal of Neurosurgical Anesthesiology, 2017, 29, 243-250.	1.2	55
25	Continuous Multimodality Monitoring in Children after Traumatic Brain Injuryâ€"Preliminary Experience. PLoS ONE, 2016, 11, e0148817.	2.5	49
26	Cerebrovascular pressure reactivity monitoring using wavelet analysis in traumatic brain injury patients: A retrospective study. PLoS Medicine, 2017, 14, e1002348.	8.4	48
27	Validation of Pressure Reactivity and Pulse Amplitude Indices against the Lower Limit of Autoregulation, Part I: Experimental Intracranial Hypertension. Journal of Neurotrauma, 2018, 35, 2803-2811.	3.4	46
28	Monitoring of Optimal Cerebral Perfusion Pressure in Traumatic Brain Injured Patients Using a Multi-Window Weighting Algorithm. Journal of Neurotrauma, 2017, 34, 3081-3088.	3.4	45
29	A Description of a New Continuous Physiological Index in Traumatic Brain Injury Using the Correlation between Pulse Amplitude of Intracranial Pressure and Cerebral Perfusion Pressure. Journal of Neurotrauma, 2018, 35, 963-974.	3.4	42
30	Transcranial Doppler Systolic Flow Index and ICP-Derived Cerebrovascular Reactivity Indices in Traumatic Brain Injury. Journal of Neurotrauma, 2018, 35, 314-322.	3.4	41
31	Continuous Near-infrared Spectroscopy Monitoring in Adult Traumatic Brain Injury: A Systematic Review. Journal of Neurosurgical Anesthesiology, 2020, 32, 288-299.	1.2	40
32	Clinical and Physiological Events That Contribute to the Success Rate of Finding â€œOptimalâ€•Cerebral Perfusion Pressure in Severe Brain Trauma Patients. Critical Care Medicine, 2015, 43, 1952-1963.	0.9	38
33	Pressure Autoregulation Measurement Techniques in Adult Traumatic Brain Injury, Part I: A Scoping Review of Intermittent/Semi-Intermittent Methods. Journal of Neurotrauma, 2017, 34, 3207-3223.	3.4	38
34	The Effect of Red Blood Cell Transfusion on Cerebral Autoregulation in Patients with Severe Traumatic Brain Injury. Neurocritical Care, 2015, 23, 210-216.	2.4	37
35	Kidney-Brain Link in Traumatic Brain Injury Patients? A preliminary report. Neurocritical Care, 2015, 22, 192-201.	2.4	36
36	Non-invasive Intracranial Pressure Assessment in Brain Injured Patients Using Ultrasound-Based Methods. Acta Neurochirurgica Supplementum, 2018, 126, 69-73.	1.0	35

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37	Compensatory-Reserve-Weighted Intracranial Pressure and Its Association with Outcome After Traumatic Brain Injury. Neurocritical Care, 2018, 28, 212-220.	2.4	35
38	Hemoglobin Area and Time Index Above 90Âg/L are Associated with Improved 6-Month Functional Outcomes in Patients with Severe Traumatic Brain Injury. Neurocritical Care, 2015, 23, 78-84.	2.4	34
39	Genetic drivers of cerebral blood flow dysfunction in TBI: a speculative synthesis. Nature Reviews Neurology, 2019, 15, 25-39.	10.1	33
40	Venous occlusion plethysmography versus Doppler ultrasound in the assessment of leg blood flow during calf exercise. European Journal of Applied Physiology, 2011, 111, 1889-1900.	2.5	32
41	Doppler Non-invasive Monitoring of ICP in an Animal Model of Acute Intracranial Hypertension. Neurocritical Care, 2015, 23, 419-426.	2.4	32
42	Transcranial Doppler Monitoring of Intracranial Pressure Plateau Waves. Neurocritical Care, 2017, 26, 330-338.	2.4	31
43	Correlating optic nerve sheath diameter with opening intracranial pressure in pediatric traumatic brain injury. Pediatric Research, 2017, 81, 443-447.	2.3	31
44	Optic nerve sheath diameter ultrasonography at admission as a predictor of intracranial hypertension in traumatic brain injured patients: a prospective observational study. Journal of Neurosurgery, 2020, 132, 1279-1285.	1.6	30
45	Worsening of central sleep apnea at high altitudeâ€"a role for cerebrovascular function. Journal of Applied Physiology, 2013, 114, 1021-1028.	2.5	29
46	Enhanced Visualization of Optimal Cerebral Perfusion Pressure Over Time to Support Clinical Decision Making*. Critical Care Medicine, 2016, 44, e996-e999.	0.9	29
47	Intracranial and Extracranial Injury Burden as Drivers of Impaired Cerebrovascular Reactivity in Traumatic Brain Injury. Journal of Neurotrauma, 2018, 35, 1569-1577.	3.4	29
48	An Association Between ICP-Derived Data and Outcome in TBI Patients: The Role of Sample Size. Neurocritical Care, 2017, 27, 103-107.	2.4	26
49	Estimating Pressure Reactivity Using Noninvasive Doppler-Based Systolic Flow Index. Journal of Neurotrauma, 2018, 35, 1559-1568.	3.4	26
50	Hypoxia, not pulmonary vascular pressure, induces blood flow through intrapulmonary arteriovenous anastomoses. Journal of Physiology, 2015, 593, 723-737.	2.9	25
51	Multimodality neuromonitoring in severe pediatric traumatic brain injury. Pediatric Research, 2018, 83, 41-49.	2.3	25
52	Cerebral haemodynamics during experimental intracranial hypertension. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 694-705.	4.3	24
53	Increased Blood Glucose is Related to Disturbed Cerebrovascular Pressure Reactivity After Traumatic Brain Injury. Neurocritical Care, 2015, 22, 20-25.	2.4	23
54	ICP Versus Laser Doppler Cerebrovascular Reactivity Indices to Assess Brain Autoregulatory Capacity. Neurocritical Care, 2018, 28, 194-202.	2.4	23

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55	Characterising the dynamics of cerebral metabolic dysfunction following traumatic brain injury: A microdialysis study in 619 patients. PLoS ONE, 2021, 16, e0260291.	2.5	23
56	Cerebral autoregulation, cerebrospinal fluid outflow resistance, and outcome following cerebrospinal fluid diversion in normal pressure hydrocephalus. Journal of Neurosurgery, 2018, 130, 154-162.	1.6	22
57	Advancing respiratoryâ€“cardiovascular physiology with the working heartâ€“brainstem preparation over 25 years. Journal of Physiology, 2022, 600, 2049-2075.	2.9	22
58	Exhaled nitric oxide and pulmonary artery pressures during graded ascent to high altitude. Respiratory Physiology and Neurobiology, 2011, 177, 213-217.	1.6	21
59	Cerebral autoregulation monitoring in acute traumatic brain injury: what's the evidence?. Minerva Anestesiologica, 2017, 83, 844-857.	1.0	21
60	Passive heat stress reduces circulating endothelial and platelet microparticles. Experimental Physiology, 2017, 102, 663-669.	2.0	20
61	Assessment of cerebral autoregulation indices â€“ a modelling perspective. Scientific Reports, 2020, 10, 9600.	3.3	19
62	Autoregulation in paediatric TBIâ€”current evidence and implications for treatment. Child's Nervous System, 2017, 33, 1735-1744.	1.1	18
63	Wavelet pressure reactivity index: a validation study. Journal of Physiology, 2018, 596, 2797-2809.	2.9	18
64	Observations on the Cerebral Effects of Refractory Intracranial Hypertension After Severe Traumatic Brain Injury. Neurocritical Care, 2020, 32, 437-447.	2.4	18
65	Optimal Cerebral Perfusion Pressure in Centers With Different Treatment Protocols. Critical Care Medicine, 2018, 46, e235-e241.	0.9	17
66	Increasing cerebral blood flow reduces the severity of central sleep apnea at high altitude. Journal of Applied Physiology, 2018, 124, 1341-1348.	2.5	16
67	UBCâ€Nepal expedition: phenotypical evidence for evolutionary adaptation in the control of cerebral blood flow and oxygen delivery at high altitude. Journal of Physiology, 2019, 597, 2993-3008.	2.9	16
68	Influence of the mode of heating on cerebral blood flow, nonâ€invasive intracranial pressure and thermal tolerance in humans. Journal of Physiology, 2021, 599, 1977-1996.	2.9	16
69	Cardiac structure and function in adolescent Sherpa; effect of habitual altitude and developmental stage. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 310, H740-H746.	3.2	15
70	Assessment of non-invasive ICP during CSF infusion test: an approach with transcranial Doppler. Acta Neurochirurgica, 2016, 158, 279-287.	1.7	15
71	Relationship Between Brain Pulsatility and Cerebral Perfusion Pressure: Replicated Validation Using Different Drivers of CPP Change. Neurocritical Care, 2017, 27, 392-400.	2.4	15
72	Changes in cerebral vascular reactivity and structure following prolonged exposure to high altitude in humans. Physiological Reports, 2015, 3, e12647.	1.7	14

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73	Cerebrovascular assessment of patients undergoing shoulder surgery in beach chair position using a multiparameter transcranial Doppler approach. Journal of Clinical Monitoring and Computing, 2019, 33, 615-625.	1.6	14
74	Cerebral metabolism, oxidation and inflammation in severe passive hyperthermia with and without respiratory alkalosis. Journal of Physiology, 2020, 598, 943-954.	2.9	14
75	Visualising the pressure-time burden of elevated intracranial pressure after severe traumatic brain injury: a retrospective confirmatory study. British Journal of Anaesthesia, 2021, 126, e15-e17.	3.4	14
76	Influence of Cerebral Blood Flow on Central Sleep Apnea at High Altitude. Sleep, 2014, 37, 1679-1687.	1.1	13
77	Cerebral critical closing pressure in hydrocephalus patients undertaking infusion tests. Neurological Research, 2015, 37, 674-682.	1.3	13
78	Cerebral Vasospasm Affects Arterial Critical Closing Pressure. Journal of Cerebral Blood Flow and Metabolism, 2015, 35, 285-291.	4.3	13
79	Influence of general anaesthesia on slow waves of intracranial pressure. Neurological Research, 2016, 38, 587-592.	1.3	13
80	Intraoperative non invasive intracranial pressure monitoring during pneumoperitoneum: a case report and a review of the published cases and case report series. Journal of Clinical Monitoring and Computing, 2016, 30, 527-538.	1.6	13
81	A multiplex network approach for the analysis of intracranial pressure and heart rate data in traumatic brain injured patients. Applied Network Science, 2017, 2, 29.	1.5	13
82	Baroreflex Impairment After Subarachnoid Hemorrhage Is Associated With Unfavorable Outcome. Stroke, 2018, 49, 1632-1638.	2.0	12
83	An Update on the COGiTATE Phase II Study: Feasibility and Safety of Targeting an Optimal Cerebral Perfusion Pressure as a Patient-Tailored Therapy in Severe Traumatic Brain Injury. Acta Neurochirurgica Supplementum, 2021, 131, 143-147.	1.0	12
84	Further Controversies About Brain Tissue Oxygenation Pressure-Reactivity After Traumatic Brain Injury. Neurocritical Care, 2018, 28, 162-168.	2.4	11
85	Effects of Age and Sex on Optic Nerve Sheath Diameter in Healthy Volunteers and Patients With Traumatic Brain Injury. Frontiers in Neurology, 2020, 11, 764.	2.4	11
86	Effect of hypoxia on the dynamic response of hyperaemia in the contracting human calf muscle. Experimental Physiology, 2013, 98, 81-93.	2.0	10
87	Thresholds for identifying pathological intracranial pressure in paediatric traumatic brain injury. Scientific Reports, 2019, 9, 3537.	3.3	10
88	Transcranial Doppler Non-invasive Assessment of Intracranial Pressure, Autoregulation of Cerebral Blood Flow and Critical Closing Pressure during Orthotopic Liver Transplant. Ultrasound in Medicine and Biology, 2019, 45, 1435-1445.	1.5	10
89	Estimation of pulsatile cerebral arterial blood volume based on transcranial doppler signals. Medical Engineering and Physics, 2019, 74, 23-32.	1.7	10
90	Chemoreceptor Responsiveness at Sea Level Does Not Predict the Pulmonary Pressure Response to High Altitude. Chest, 2015, 148, 219-225.	0.8	9

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91	Clinical application of non-invasive intracranial pressure measurements. British Journal of Anaesthesia, 2018, 121, 500-501.	3.4	9
92	Radiological Correlates of Raised Intracranial Pressure in Children: A Review. Frontiers in Pediatrics, 2018, 6, 32.	1.9	9
93	Changes in cardiac autonomic activity during intracranial pressure plateau waves in patients with traumatic brain injury. Clinical Autonomic Research, 2019, 29, 123-126.	2.5	9
94	Comparison of wavelet and correlation indices of cerebral autoregulation in a pediatric swine model of cardiac arrest. Scientific Reports, 2020, 10, 5926.	3.3	9
95	Lower Limit of Reactivity Assessed with PRx in an Experimental Setting. Acta Neurochirurgica Supplementum, 2021, 131, 275-278.	1.0	9
96	Visualisation of the â€˜Optimal Cerebral Perfusionâ€™ Landscape in Severe Traumatic Brain Injury Patients. Acta Neurochirurgica Supplementum, 2018, 126, 55-58.	1.0	7
97	Optimal Cerebral Perfusion Pressure Assessed with a Multi-Window Weighted Approach Adapted for Prospective Use: A Validation Study. Acta Neurochirurgica Supplementum, 2021, 131, 181-185.	1.0	7
98	Variability of the Optic Nerve Sheath Diameter on the Basis of Sex and Age in a Cohort of Healthy Volunteers. Acta Neurochirurgica Supplementum, 2021, 131, 121-124.	1.0	7
99	Simultaneous Transients of Intracranial Pressure and Heart Rate in Traumatic Brain Injury: Methods of Analysis. Acta Neurochirurgica Supplementum, 2018, 126, 147-151.	1.0	7
100	The thermodynamic brain. Critical Care, 2014, 18, 693.	5.8	6
101	Intracranial pressure in outer space: preparing for the mission to Mars. Journal of Physiology, 2017, 595, 4587-4588.	2.9	6
102	Autonomic Nervous System Activity during Refractory Rise in Intracranial Pressure. Journal of Neurotrauma, 2021, 38, 1662-1669.	3.4	6
103	Cerebrovascular Consequences of Elevated Intracranial Pressure After Traumatic Brain Injury. Acta Neurochirurgica Supplementum, 2021, 131, 43-48.	1.0	6
104	Negligible influence of moderate to severe hyperthermia on blood-brain barrier permeability and neuronal parenchymal integrity in healthy men. Journal of Applied Physiology, 2021, 130, 792-800.	2.5	6
105	The influence of hemoconcentration on hypoxic pulmonary vasoconstriction in acute, prolonged, and lifelong hypoxemia. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 321, H738-H747.	3.2	6
106	Are Slow Waves of Intracranial Pressure Suppressed by General Anaesthesia?. Acta Neurochirurgica Supplementum, 2018, 126, 129-132.	1.0	6
107	Comparison of different metrics of cerebral autoregulation in association with major morbidity and mortality after cardiac surgery. British Journal of Anaesthesia, 2022, 129, 22-32.	3.4	6
108	Computed Tomography Indicators of Deranged Intracranial Physiology in Paediatric Traumatic Brain Injury. Acta Neurochirurgica Supplementum, 2018, 126, 29-34.	1.0	5

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109	Midline shift in patients with closed traumatic brain injury may be driven by cerebral perfusion pressure not intracranial pressure. Journal of Neurosurgical Sciences, 2021, 65, 383-390.	0.6	5
110	Profound hyperventilation and development of periodic breathing during exceptional orthostatic stress in a 21-year-old man. Respiratory Physiology and Neurobiology, 2011, 177, 66-70.	1.6	4
111	Glycemia Is Related to Impaired Cerebrovascular Autoregulation after Severe Pediatric Traumatic Brain Injury: A Retrospective Observational Study. Frontiers in Pediatrics, 2017, 5, 205.	1.9	4
112	Increased ICP and Its Cerebral Haemodynamic Sequelae. Acta Neurochirurgica Supplementum, 2018, 126, 47-50.	1.0	4
113	Survey in expert clinicians on the validity of automated calculation of optimal cerebral perfusion pressure. Minerva Anestesiologica, 2018, 84, 40-48.	1.0	4
114	Arterial and Venous Cerebral Blood Flow Velocities and Their Correlation in Healthy Volunteers and Traumatic Brain Injury Patients. Journal of Neurosurgical Anesthesiology, 2022, 34, e24-e33.	1.2	4
115	A Meta-Analysis of Exhaled Nitric Oxide in Acute Normobaric Hypoxia. Aerospace Medicine and Human Performance, 2015, 86, 693-697.	0.4	3
116	Pre-hospital Predictors of Impaired ICP Trends in Continuous Monitoring of Paediatric Traumatic Brain Injury Patients. Acta Neurochirurgica Supplementum, 2018, 126, 7-10.	1.0	3
117	Neuromonitoring of patients with severe traumatic brain injury at the bedside. Critical Care, 2015, 19, .	5.8	2
118	Brain Oxygenation Optimization After Severe Traumatic Brain Injury. Critical Care Medicine, 2018, 46, e350.	0.9	2
119	Visualization of Intracranial Pressure Insults After Severe Traumatic Brain Injury: Influence of Individualized Limits of Reactivity. Acta Neurochirurgica Supplementum, 2021, 131, 7-10.	1.0	2
120	Are B waves of intracranial pressure suppressed by general anesthesia?. Fluids and Barriers of the CNS, 2015, 12, O63.	5.0	1
121	Analysis of the Association Between Lung Function and Brain Tissue Oxygen Tension in Severe Traumatic Brain Injury. Acta Neurochirurgica Supplementum, 2021, 131, 27-30.	1.0	1
122	A prospective observational study of emboli exposure in open versus closed chamber cardiac surgery. Perfusion (United Kingdom), 2021, , 026765912110238.	1.0	1
123	Do ICP-Derived Parameters Differ in Vegetative State from Other Outcome Groups After Traumatic Brain Injury?. Acta Neurochirurgica Supplementum, 2018, 126, 17-20.	1.0	1
124	A prospective observational study on the effect of emboli exposure on cerebral autoregulation in cardiac surgery requiring cardiopulmonary bypass. Perfusion (United Kingdom), 2023, 38, 1045-1052.	1.0	1
125	Non-invasive assessment of ICP during infusion test using Transcranial Doppler Ultrasonography. Fluids and Barriers of the CNS, 2015, 12, .	5.0	0
126	186 Predicting the Requirement for Intracranial Pressure Monitoring in Pediatric Traumatic Brain Injury. Neurosurgery, 2017, 64, 249.	1.1	0

#	Article	IF	Citations
127	The authors reply. Critical Care Medicine, 2018, 46, e176.	0.9	0
128	Getting hot under the collar: temperature and cerebral autoregulation. Journal of Emergency and Critical Care Medicine, 0, 2, 89-89.	0.7	0
129	Pharmacologically increasing cerebral blood flow reduced central sleep apnea severity at high altitude. , 2015, , .		0
130	Effect of increasing cerebral blood flow on sleep architecture at high altitude. , 2016, , .		0
131	Title is missing!. , 2020, 15, e0243427.		0
132	Title is missing!. , 2020, 15, e0243427.		0
133	Title is missing!. , 2020, 15, e0243427.		0
134	Title is missing!. , 2020, 15, e0243427.		0