

# Rong Zhang

## List of Publications by Year in descending order

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93  
papers

3,380  
citations

172207

29  
h-index

155451

55  
g-index

106  
all docs

106  
docs citations

106  
times ranked

4105  
citing authors

#	ARTICLE	IF	CITATIONS
1	Autonomic Neural Control of Dynamic Cerebral Autoregulation in Humans. <i>Circulation</i> , 2002, 106, 1814-1820.	1.6	398
2	Cardiac Remodeling in Response to 1 Year of Intensive Endurance Training. <i>Circulation</i> , 2014, 130, 2152-2161.	1.6	241
3	Cerebral blood flow in normal aging adults: cardiovascular determinants, clinical implications, and aerobic fitness. <i>Journal of Neurochemistry</i> , 2018, 144, 595-608.	2.1	177
4	Cerebral Hemodynamics in Normal Aging: Central Artery Stiffness, Wave Reflection, and Pressure Pulsatility. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 971-978.	2.4	170
5	Deterioration of cerebral autoregulation during orthostatic stress: insights from the frequency domain. <i>Journal of Applied Physiology</i> , 1998, 85, 1113-1122.	1.2	136
6	Impaired cerebral autoregulation: measurement and application to stroke. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , 2017, 88, 520-531.	0.9	114
7	Dynamic Cerebral Autoregulation and Tissue Oxygenation in Amnesic Mild Cognitive Impairment. <i>Journal of Alzheimer's Disease</i> , 2014, 41, 765-778.	1.2	113
8	Distribution of cardiac output to the brain across the adult lifespan. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 2848-2856.	2.4	97
9	Wavelet coherence analysis of dynamic cerebral autoregulation in neonatal hypoxic-ischemic encephalopathy. <i>NeuroImage: Clinical</i> , 2016, 11, 124-132.	1.4	94
10	Dynamic pressure-flow relationship of the cerebral circulation during acute increase in arterial pressure. <i>Journal of Physiology</i> , 2009, 587, 2567-2577.	1.3	93
11	Mechanism of blood pressure and R-R variability: insights from ganglion blockade in humans. <i>Journal of Physiology</i> , 2002, 543, 337-348.	1.3	91
12	Age-related increase of resting metabolic rate in the human brain. <i>NeuroImage</i> , 2014, 98, 176-183.	2.1	89
13	Spontaneous fluctuations in cerebral blood flow: insights from extended-duration recordings in humans. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2000, 278, H1848-H1855.	1.5	88
14	Cerebral Hemodynamics During the Valsalva Maneuver. <i>Stroke</i> , 2004, 35, 843-847.	1.0	83
15	Cerebral Hemodynamics After Short- and Long-Term Reduction in Blood Pressure in Mild and Moderate Hypertension. <i>Hypertension</i> , 2007, 49, 1149-1155.	1.3	82
16	Masters athletes exhibit larger regional brain volume and better cognitive performance than sedentary older adults. <i>Journal of Magnetic Resonance Imaging</i> , 2013, 38, 1169-1176.	1.9	75
17	Elevated CNS Inflammation in Patients with Preclinical Alzheimer's Disease. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 30-33.	2.4	74
18	Global brain hypoperfusion and oxygenation in amnesic mild cognitive impairment. <i>Alzheimer's and Dementia</i> , 2014, 10, 162-170.	0.4	62

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19	Effect of pulsatile and nonpulsatile flow on cerebral perfusion in patients with left ventricular assist devices. <i>Journal of Heart and Lung Transplantation</i> , 2014, 33, 1295-1303.	0.3	58
20	Autonomic Ganglionic Blockade Does Not Prevent Reduction in Cerebral Blood Flow Velocity During Orthostasis in Humans. <i>Stroke</i> , 2007, 38, 1238-1244.	1.0	56
21	Optimization of phase-contrast MRI for the quantification of whole-brain cerebral blood flow. <i>Journal of Magnetic Resonance Imaging</i> , 2015, 42, 1126-1133.	1.9	51
22	Exercise Training in Amnesic Mild Cognitive Impairment: A One-Year Randomized Controlled Trial. <i>Journal of Alzheimer's Disease</i> , 2019, 71, 421-433.	1.2	51
23	One-Year Aerobic Exercise Reduced Carotid Arterial Stiffness and Increased Cerebral Blood Flow in Amnesic Mild Cognitive Impairment. <i>Journal of Alzheimer's Disease</i> , 2021, 80, 841-853.	1.2	48
24	Inhibition of nitric oxide synthase does not alter dynamic cerebral autoregulation in humans. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2004, 286, H863-H869.	1.5	44
25	Central artery stiffness, baroreflex sensitivity, and brain white matter neuronal fiber integrity in older adults. <i>NeuroImage</i> , 2015, 110, 162-170.	2.1	41
26	Vascular Coupling in Resting-State fMRI: Evidence from Multiple Modalities. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2015, 35, 1910-1920.	2.4	39
27	Novel Wavelet Real Time Analysis of Neurovascular Coupling in Neonatal Encephalopathy. <i>Scientific Reports</i> , 2017, 7, 45958.	1.6	35
28	Older Adults with Amnesic Mild Cognitive Impairment Exhibit Exacerbated Gait Slowing under Dual-Task Challenges. <i>Current Alzheimer Research</i> , 2014, 11, 494-500.	0.7	35
29	Individual variability of cerebral autoregulation, posterior cerebral circulation and white matter hyperintensity. <i>Journal of Physiology</i> , 2016, 594, 3141-3155.	1.3	33
30	Midlife aerobic exercise and brain structural integrity: Associations with age and cardiorespiratory fitness. <i>NeuroImage</i> , 2021, 225, 117512.	2.1	31
31	Lack of linear correlation between dynamic and steady-state cerebral autoregulation. <i>Journal of Physiology</i> , 2017, 595, 5623-5636.	1.3	29
32	Dynamic Cerebral Autoregulation Reproducibility Is Affected by Physiological Variability. <i>Frontiers in Physiology</i> , 2019, 10, 865.	1.3	29
33	Cerebral vasomotor reactivity during hypo- and hypercapnia across the adult lifespan. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2020, 40, 600-610.	2.4	29
34	Cerebral vasomotor reactivity: steady-state versus transient changes in carbon dioxide tension. <i>Experimental Physiology</i> , 2014, 99, 1499-1510.	0.9	27
35	Cardiorespiratory Fitness and White Matter Neuronal Fiber Integrity in Mild Cognitive Impairment. <i>Journal of Alzheimer's Disease</i> , 2017, 61, 729-739.	1.2	27
36	Amyloid burden and sleep blood pressure in amnesic mild cognitive impairment. <i>Neurology</i> , 2015, 85, 1922-1929.	1.5	26

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37	Comparison of Model-Based Indices of Cerebral Autoregulation and Vasomotor Reactivity Using Transcranial Doppler versus Near-Infrared Spectroscopy in Patients with Amnesic Mild Cognitive Impairment. <i>Journal of Alzheimer's Disease</i> , 2017, 56, 89-105.	1.2	24
38	Impact of Lifelong Exercise Training Dose on Ventricular-Arterial Coupling. <i>Circulation</i> , 2018, 138, 2638-2647.	1.6	23
39	Cerebral White Matter Integrity in Amnesic Mild Cognitive Impairment: A 1-Year Randomized Controlled Trial of Aerobic Exercise Training. <i>Journal of Alzheimer's Disease</i> , 2020, 73, 489-501.	1.2	22
40	Dynamic regulation of heart rate during acute hypotension: new insight into baroreflex function. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2001, 280, H407-H419.	1.5	21
41	Carotid Stiffness is Associated with Brain Amyloid Burden in Amnesic Mild Cognitive Impairment. <i>Journal of Alzheimer's Disease</i> , 2020, 74, 925-935.	1.2	19
42	Assessment of dynamic cerebral autoregulation in humans: Is reproducibility dependent on blood pressure variability?. <i>PLoS ONE</i> , 2020, 15, e0227651.	1.1	17
43	Central autonomic network functional connectivity: correlation with baroreflex function and cardiovascular variability in older adults. <i>Brain Structure and Function</i> , 2020, 225, 1575-1585.	1.2	17
44	Cerebral Hemodynamics in Asphyxiated Newborns Undergoing Hypothermia Therapy: Pilot Findings Using a Multiple-Time-Scale Analysis. <i>Pediatric Neurology</i> , 2016, 55, 30-36.	1.0	16
45	Adaptive lymphocyte profiles correlate to brain amyloid burden in patients with mild cognitive impairment. <i>Journal of Neuroinflammation</i> , 2017, 14, 149.	3.1	16
46	One-year aerobic exercise altered cerebral vasomotor reactivity in mild cognitive impairment. <i>Journal of Applied Physiology</i> , 2021, 131, 119-130.	1.2	16
47	Rationale and methods for a multicenter clinical trial assessing exercise and intensive vascular risk reduction in preventing dementia (rAD Study). <i>Contemporary Clinical Trials</i> , 2019, 79, 44-54.	0.8	15
48	Brain White Matter Hyperintensity Lesion Characterization in T2 Fluid-Attenuated Inversion Recovery Magnetic Resonance Images: Shape, Texture, and Potential Growth. <i>Frontiers in Neuroscience</i> , 2019, 13, 353.	1.4	14
49	Impaired cerebral blood flow regulation in chronic traumatic brain injury. <i>Brain Research</i> , 2020, 1743, 146924.	1.1	14
50	Aerobic exercise training and neurocognitive function in cognitively normal older adults: A one-year randomized controlled trial. <i>Journal of Internal Medicine</i> , 2022, 292, 788-803.	2.7	14
51	Wavelet-based neurovascular coupling can predict brain abnormalities in neonatal encephalopathy. <i>NeuroImage: Clinical</i> , 2021, 32, 102856.	1.4	13
52	Brain blood and cerebrospinal fluid flow dynamics during rhythmic handgrip exercise in young healthy men and women. <i>Journal of Physiology</i> , 2021, 599, 1799-1813.	1.3	12
53	Obstructive sleep apnea: Brain hemodynamics, structure, and function. <i>Journal of Applied Biobehavioral Research</i> , 2017, 22, e12101.	2.0	10
54	The Level of Plasma Amyloid- $\beta$ 40 Is Correlated with Peripheral Transport Proteins in Cognitively Normal Adults: A Population-Based Cross-Sectional Study. <i>Journal of Alzheimer's Disease</i> , 2018, 65, 951-961.	1.2	9

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55	Carotid Arterial Stiffness and Cerebral Blood Flow in Amnesic Mild Cognitive Impairment. <i>Current Alzheimer Research</i> , 2021, 17, 1115-1125.	0.7	9
56	Neurovascular coupling (NVC) in newborns using processed EEG versus amplitude-EEG. <i>Scientific Reports</i> , 2021, 11, 9426.	1.6	9
57	Rigor of Neurovascular Coupling (NVC) Assessment in Newborns Using Different Amplitude EEG Algorithms. <i>Scientific Reports</i> , 2020, 10, 9183.	1.6	8
58	A proof-of-concept trial of a community-based aerobic exercise program for individuals with traumatic brain injury. <i>Brain Injury</i> , 2021, 35, 233-240.	0.6	8
59	EEG Spectral Power: A Proposed Physiological Biomarker to Classify the Hypoxic-Ischemic Encephalopathy Severity in Real Time. <i>Pediatric Neurology</i> , 2021, 122, 7-14.	1.0	8
60	Midlife aerobic exercise and dynamic cerebral autoregulation: associations with baroreflex sensitivity and central arterial stiffness. <i>Journal of Applied Physiology</i> , 2021, 131, 1599-1612.	1.2	8
61	Middle-aged endurance athletes exhibit lower cerebrovascular impedance than sedentary peers. <i>Journal of Applied Physiology</i> , 2020, 129, 335-342.	1.2	7
62	Older age and male sex are associated with higher cerebrovascular impedance. <i>Journal of Applied Physiology</i> , 2021, 130, 172-181.	1.2	7
63	Estimation of cerebral blood flow velocity during breath-hold challenge using artificial neural networks. <i>Computers in Biology and Medicine</i> , 2019, 115, 103508.	3.9	6
64	EEG phase-amplitude coupling to stratify encephalopathy severity in the developing brain. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 214, 106593.	2.6	6
65	Regional heterogeneity of cerebral hemodynamics in mild neonatal encephalopathy measured with multichannel near-infrared spectroscopy. <i>Pediatric Research</i> , 2021, 89, 882-888.	1.1	5
66	The impact of 2 years of high-intensity exercise training on a model of integrated cardiovascular regulation. <i>Journal of Physiology</i> , 2019, 597, 419-429.	1.3	4
67	Apolipoprotein E $\epsilon$ 4 Allele is Associated With Plasma Amyloid Beta and Amyloid Beta Transporter Levels: A Cross-sectional Study in a Rural Area of Xi'an, China. <i>American Journal of Geriatric Psychiatry</i> , 2020, 28, 194-204.	0.6	4
68	Baseline Prevalence of Polypharmacy in Older Hypertensive Study Subjects with Elevated Dementia Risk: Findings from the Risk Reduction for Alzheimer's Disease Study (rrAD). <i>Journal of Alzheimer's Disease</i> , 2020, 77, 175-182.	1.2	4
69	Cerebral Vasomotor Reactivity in Amnesic Mild Cognitive Impairment. <i>Journal of Alzheimer's Disease</i> , 2020, 77, 191-202.	1.2	4
70	Faster Brain Shrinkage in the ACCORD MIND Study. <i>JAMA Internal Medicine</i> , 2015, 175, 144.	2.6	3
71	Hippocampal and rostral anterior cingulate blood flow is associated with affective symptoms in chronic traumatic brain injury. <i>Brain Research</i> , 2021, 1771, 147631.	1.1	3
72	The Dynamic Relationship Between Cortical Oxygenation and End-Tidal CO <sub>2</sub> Transient Changes Is Impaired in Mild Cognitive Impairment Patients. <i>Frontiers in Physiology</i> , 2021, 12, 772456.	1.3	3

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73	Physical activity and perceived barriers in individuals with <sc>moderate-to-severe</sc> traumatic brain injury. PM and R, 2023, 15, 705-714.	0.9	3
74	Comparing model-based cerebrovascular physiometers with DTI biomarkers in MCI patients. Brain and Behavior, 2019, 9, e01356.	1.0	2
75	Dysregulation of CO2-Driven Heart-Rate Chemoreflex Is Related Closely to Impaired CO2 Dynamic Vasomotor Reactivity in Mild Cognitive Impairment Patients. Journal of Alzheimer's Disease, 2020, 75, 855-870.	1.2	2
76	Physical activity status and quality of life in patients with epilepsy – Survey from level four epilepsy monitoring units. Epilepsy Research, 2021, 173, 106639.	0.8	2
77	Usability of a two-way personalized mobile trainer system in a community-based exercise program for adults with chronic traumatic brain injury. Brain Injury, 2022, 36, 359-367.	0.6	2
78	Nonlinear analysis of dynamic cerebral autoregulation in humans under orthostatic stress. , 0, , .		1
79	Ventricular-arterial coupling and arterial baroreflex function in patients with heart failure and normal ejection fraction. FASEB Journal, 2006, 20, A1197.	0.2	1
80	O3-09-01: Patients with mild cognitive impairment exhibit gait disturbances when challenged cognitively. , 2013, 9, P535-P535.		0
81	P1-208: Amyloid burden in patients with mild cognitive impairment is associated with elevated blood pressure during sleep and altered cerebral pressure-flow dynamics. , 2015, 11, P429-P430.		0
82	ICâ€Pâ€152: BRAIN WHITE MATTER HYPERINTENSITY LESION CHARACTERIZATION IN T<sub>2</sub> FLUID-ATTENUATED INVERSION RECOVERY MAGNETIC RESONANCE IMAGES: SHAPE, TEXTURE, AND PENUMBRA. Alzheimer's and Dementia, 2019, 15, P122.	0.4	0
83	ICâ€Pâ€041: STRATEGIES OF BRAIN MRI DATA ACQUISITION, QUALITY CONTROL AND ANALYSIS FOR THE MULTICENTER RISK REDUCTION FOR ALZHEIMER'S DISEASE (RRAD) CLINICAL TRIAL. Alzheimer's and Dementia, 2019, 15, P45.	0.4	0
84	Dynamic cerebral autoregulation during passive heat stress. FASEB Journal, 2008, 22, 956.8.	0.2	0
85	Impact of Aging and Life-long Exercise on Cerebral Vasomotor Reactivity. FASEB Journal, 2011, 25, 1057.4.	0.2	0
86	Aerobic exercise training Increases brain perfusion in elderly women. FASEB Journal, 2011, 25, 1057.3.	0.2	0
87	Vascular Aging: Association between Endothelial Function and Arterial Stiffness. FASEB Journal, 2013, 27, 1138.4.	0.2	0
88	The Role of Cardiorespiratory Fitness and Central Arterial Pressure in Age-related Reduction in Brain Volume. FASEB Journal, 2013, 27, 709.5.	0.2	0
89	Estimation of Cerebral Vasomotor Reactivity with Near Infrared Spectroscopy in Young Adults. FASEB Journal, 2020, 34, 1-1.	0.2	0
90	Title is missing!. , 2020, 15, e0227651.		0

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91	Title is missing!. , 2020, 15, e0227651.		0
92	Title is missing!. , 2020, 15, e0227651.		0
93	Title is missing!. , 2020, 15, e0227651.		0