

# Krishna Gokul

## List of Publications by Year in descending order

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86  
papers

6,670  
citations

117453

34  
h-index

64668

79  
g-index

87  
all docs

87  
docs citations

87  
times ranked

8358  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hippocampal BDNF mediates the efficacy of exercise on synaptic plasticity and cognition. <i>European Journal of Neuroscience</i> , 2004, 20, 2580-2590.	1.2	1,193
2	Voluntary Exercise Induces a BDNF-Mediated Mechanism That Promotes Neuroplasticity. <i>Journal of Neurophysiology</i> , 2002, 88, 2187-2195.	0.9	578
3	Dietary Omega-3 Fatty Acids Normalize BDNF Levels, Reduce Oxidative Damage, and Counteract Learning Disability after Traumatic Brain Injury in Rats. <i>Journal of Neurotrauma</i> , 2004, 21, 1457-1467.	1.7	468
4	Brain-derived neurotrophic factor functions as a metabotrophin to mediate the effects of exercise on cognition. <i>European Journal of Neuroscience</i> , 2008, 28, 2278-2287.	1.2	297
5	Diet and depression: exploring the biological mechanisms of action. <i>Molecular Psychiatry</i> , 2021, 26, 134-150.	4.1	265
6	Revenge of the "Sit": How lifestyle impacts neuronal and cognitive health through molecular systems that interface energy metabolism with neuronal plasticity. <i>Journal of Neuroscience Research</i> , 2006, 84, 699-715.	1.3	258
7	Dietary curcumin counteracts the outcome of traumatic brain injury on oxidative stress, synaptic plasticity, and cognition. <i>Experimental Neurology</i> , 2006, 197, 309-317.	2.0	241
8	Exercise-induced improvement in cognitive performance after traumatic brain injury in rats is dependent on BDNF activation. <i>Brain Research</i> , 2009, 1288, 105-115.	1.1	233
9	Physical exercise as an epigenetic modulator of brain plasticity and cognition. <i>Neuroscience and Biobehavioral Reviews</i> , 2017, 80, 443-456.	2.9	197
10	Exercise induces BDNF and synapsin I to specific hippocampal subfields. <i>Journal of Neuroscience Research</i> , 2004, 76, 356-362.	1.3	168
11	Natural mood foods: The actions of polyphenols against psychiatric and cognitive disorders. <i>Nutritional Neuroscience</i> , 2012, 15, 127-133.	1.5	156
12	Omega-3 Fatty Acid Deficiency during Brain Maturation Reduces Neuronal and Behavioral Plasticity in Adulthood. <i>PLoS ONE</i> , 2011, 6, e28451.	1.1	148
13	The Salutary Effects of DHA Dietary Supplementation on Cognition, Neuroplasticity, and Membrane Homeostasis after Brain Trauma. <i>Journal of Neurotrauma</i> , 2011, 28, 2113-2122.	1.7	142
14	The influences of diet and exercise on mental health through hormesis. <i>Ageing Research Reviews</i> , 2008, 7, 49-62.	5.0	125
15	Vitamin E Protects Against Oxidative Damage and Learning Disability After Mild Traumatic Brain Injury in Rats. <i>Neurorehabilitation and Neural Repair</i> , 2010, 24, 290-298.	1.4	125
16	Single cell molecular alterations reveal target cells and pathways of concussive brain injury. <i>Nature Communications</i> , 2018, 9, 3894.	5.8	113
17	Traumatic Brain Injury Induces Genome-Wide Transcriptomic, Methylomic, and Network Perturbations in Brain and Blood Predicting Neurological Disorders. <i>EBioMedicine</i> , 2017, 16, 184-194.	2.7	88
18	Diet and cognition. <i>Current Opinion in Clinical Nutrition and Metabolic Care</i> , 2013, 16, 726-733.	1.3	84

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19	Probiotic attributes, antioxidant, anti-inflammatory and neuromodulatory effects of <i>Enterococcus faecium</i> CFR 3003: in vitro and in vivo evidence. <i>Journal of Medical Microbiology</i> , 2015, 64, 1527-1540.	0.7	77
20	The combined effects of exercise and foods in preventing neurological and cognitive disorders. <i>Preventive Medicine</i> , 2011, 52, S75-S80.	1.6	76
21	Afferent Input Modulates Neurotrophins and Synaptic Plasticity in the Spinal Cord. <i>Journal of Neurophysiology</i> , 2004, 92, 3423-3432.	0.9	71
22	Exercise contributes to the effects of DHA dietary supplementation by acting on membrane-related synaptic systems. <i>Brain Research</i> , 2010, 1341, 32-40.	1.1	71
23	A pyrazole curcumin derivative restores membrane homeostasis disrupted after brain trauma. <i>Experimental Neurology</i> , 2010, 226, 191-199.	2.0	67
24	Systems Nutrigenomics Reveals Brain Gene Networks Linking Metabolic and Brain Disorders. <i>EBioMedicine</i> , 2016, 7, 157-166.	2.7	59
25	Curcumin boosts DHA in the brain: Implications for the prevention of anxiety disorders. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2015, 1852, 951-961.	1.8	57
26	Exercise decreases myelin-associated glycoprotein expression in the spinal cord and positively modulates neuronal growth. <i>Glia</i> , 2007, 55, 966-975.	2.5	55
27	Fructose consumption reduces hippocampal synaptic plasticity underlying cognitive performance. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2015, 1852, 2379-2390.	1.8	55
28	Interactive actions of Bdnf methylation and cell metabolism for building neural resilience under the influence of diet. <i>Neurobiology of Disease</i> , 2015, 73, 307-318.	2.1	55
29	Flavonoid derivative 7,8-DHF attenuates TBI pathology via TrkB activation. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2015, 1852, 862-872.	1.8	52
30	Dietary fructose aggravates the pathobiology of traumatic brain injury by influencing energy homeostasis and plasticity. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2016, 36, 941-953.	2.4	49
31	Interplay between exercise and dietary fat modulates myelinogenesis in the central nervous system. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2016, 1862, 545-555.	1.8	46
32	Joint cell segmentation and cell type annotation for spatial transcriptomics. <i>Molecular Systems Biology</i> , 2021, 17, e10108.	3.2	46
33	Oral Supplements of Aqueous Extract of Tomato Seeds Alleviate Motor Abnormality, Oxidative Impairments and Neurotoxicity Induced by Rotenone in Mice: Relevance to Parkinson's Disease. <i>Neurochemical Research</i> , 2014, 39, 1382-1394.	1.6	45
34	Deterioration of plasticity and metabolic homeostasis in the brain of the UCD-T2DM rat model of naturally occurring type-2 diabetes. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014, 1842, 1313-1323.	1.8	39
35	7,8-Dihydroxyflavone facilitates the action exercise to restore plasticity and functionality: Implications for early brain trauma recovery. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2017, 1863, 1204-1213.	1.8	38
36	Cerebral Fructose Metabolism as a Potential Mechanism Driving Alzheimer's Disease. <i>Frontiers in Aging Neuroscience</i> , 2020, 12, 560865.	1.7	38

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37	Collaborative Effects of Diet and Exercise on Cognitive Enhancement. <i>Nutrition and Health</i> , 2011, 20, 165-169.	0.6	37
38	The Influence of Dietary Factors in Central Nervous System Plasticity and Injury Recovery. <i>PM and R</i> , 2011, 3, S111-6.	0.9	35
39	Coupling energy homeostasis with a mechanism to support plasticity in brain trauma. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2014, 1842, 535-546.	1.8	35
40	Standardized <i>Bacopa monnieri</i> extract ameliorates acute paraquat-induced oxidative stress, and neurotoxicity in prepubertal mice brain. <i>Nutritional Neuroscience</i> , 2016, 19, 434-446.	1.5	33
41	Approaches to Monitor Circuit Disruption after Traumatic Brain Injury: <i>Frontiers in Preclinical Research</i> . <i>International Journal of Molecular Sciences</i> , 2020, 21, 588.	1.8	32
42	Brain and Spinal Cord Interaction: Protective Effects of Exercise Prior to Spinal Cord Injury. <i>PLoS ONE</i> , 2012, 7, e32298.	1.1	30
43	Blueberry Supplementation Mitigates Altered Brain Plasticity and Behavior after Traumatic Brain Injury in Rats. <i>Molecular Nutrition and Food Research</i> , 2019, 63, e1801055.	1.5	29
44	Inulin supplementation during gestation mitigates acrylamide-induced maternal and fetal brain oxidative dysfunctions and neurotoxicity in rats. <i>Neurotoxicology and Teratology</i> , 2015, 49, 49-58.	1.2	28
45	Making sense of gut feelings in the traumatic brain injury pathogenesis. <i>Neuroscience and Biobehavioral Reviews</i> , 2019, 102, 345-361.	2.9	28
46	Voluntary exercise blocks Western diet-induced gene expression of the chemokines CXCL10 and CCL2 in the prefrontal cortex. <i>Brain, Behavior, and Immunity</i> , 2016, 58, 82-90.	2.0	26
47	Short-term fructose ingestion affects the brain independently from establishment of metabolic syndrome. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2018, 1864, 24-33.	1.8	25
48	Sex-Dependent Pathology in the HPA Axis at a Sub-acute Period After Experimental Traumatic Brain Injury. <i>Frontiers in Neurology</i> , 2020, 11, 946.	1.1	25
49	Nerve Growth Factor Is Responsible for Exercise-Induced Recovery of Septohippocampal Cholinergic Structure and Function. <i>Frontiers in Neuroscience</i> , 2018, 12, 773.	1.4	24
50	Traumatic Brain Injury-Induced Sex-Dependent Changes in Late-Onset Sensory Hypersensitivity and Glutamate Neurotransmission. <i>Frontiers in Neurology</i> , 2020, 11, 749.	1.1	24
51	Vulnerability Imposed by Diet and Brain Trauma for Anxiety-Like Phenotype: Implications for Post-Traumatic Stress Disorders. <i>PLoS ONE</i> , 2013, 8, e57945.	1.1	23
52	Diazepam induces FGF-2 mRNA in the hippocampus and striatum. <i>Brain Research Bulletin</i> , 2000, 53, 283-289.	1.4	22
53	Voluntary exercise may engage proteasome function to benefit the brain after trauma. <i>Brain Research</i> , 2010, 1341, 25-31.	1.1	21
54	A Combination Supplement of Fructo- and Xylo-Oligosaccharides Significantly Abrogates Oxidative Impairments and Neurotoxicity in Maternal/Fetal Milieu Following Gestational Exposure to Acrylamide in Rat. <i>Neurochemical Research</i> , 2015, 40, 1904-1918.	1.6	21

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55	Differential metabolic and multi-tissue transcriptomic responses to fructose consumption among genetically diverse mice. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165569.	1.8	21
56	Design and optimization of clotrimazole- $\beta$ -hydroxypropyl- $\gamma$ -cyclodextrin bioadhesive vaginal tablets using Anacardium occidentale gum by 3 <sup>2</sup> factorial design. <i>RSC Advances</i> , 2015, 5, 35391-35404.	1.7	20
57	The influence of naturalistic experience on plasticity markers in somatosensory cortex and hippocampus: Effects of whisker use. <i>Brain Research</i> , 2011, 1388, 39-47.	1.1	19
58	Effects of Diet and/or Exercise in Enhancing Spinal Cord Sensorimotor Learning. <i>PLoS ONE</i> , 2012, 7, e41288.	1.1	19
59	Biglycan gene connects metabolic dysfunction with brain disorder. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2018, 1864, 3679-3687.	1.8	18
60	Oral supplements of inulin during gestation offsets rotenone-induced oxidative impairments and neurotoxicity in maternal and prenatal rat brain. <i>Biomedicine and Pharmacotherapy</i> , 2018, 104, 751-762.	2.5	18
61	Dietary Omega-3 Deficiency from Gestation Increases Spinal Cord Vulnerability to Traumatic Brain Injury-Induced Damage. <i>PLoS ONE</i> , 2012, 7, e52998.	1.1	17
62	Methamphetamine blocks exercise effects on Bdnf and Drd2 gene expression in frontal cortex and striatum. <i>Neuropharmacology</i> , 2015, 99, 658-664.	2.0	17
63	Host Genetic Background and Gut Microbiota Contribute to Differential Metabolic Responses to Fructose Consumption in Mice. <i>Journal of Nutrition</i> , 2020, 150, 2716-2728.	1.3	15
64	Aqueous extract of tomato seeds attenuates rotenone-induced oxidative stress and neurotoxicity in <i>Drosophila melanogaster</i> . <i>Journal of the Science of Food and Agriculture</i> , 2016, 96, 1745-1755.	1.7	14
65	The influence of diet and physical activity on brain repair and neurosurgical outcome. <i>World Neurosurgery</i> , 2008, 70, 333-335.	1.3	13
66	Brain Trauma Disrupts Hepatic Lipid Metabolism: Blame It on Fructose?. <i>Molecular Nutrition and Food Research</i> , 2019, 63, e1801054.	1.5	12
67	<i>Drosophila</i> as a model to explore secondary injury cascades after traumatic brain injury. <i>Biomedicine and Pharmacotherapy</i> , 2021, 142, 112079.	2.5	12
68	System biology approach intersecting diet and cell metabolism with pathogenesis of brain disorders. <i>Progress in Neurobiology</i> , 2018, 169, 76-90.	2.8	11
69	The interaction between brain and liver regulates lipid metabolism in the TBI pathology. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2021, 1867, 166078.	1.8	10
70	Bacopa monnieri Supplements Offset Paraquat-Induced Behavioral Phenotype and Brain Oxidative Pathways in Mice. <i>Central Nervous System Agents in Medicinal Chemistry</i> , 2019, 19, 57-66.	0.5	10
71	Oral supplements of combined fructo- and xylo-oligosaccharides during perinatal period significantly offsets acrylamide-induced oxidative impairments and neurotoxicity in rats. <i>Journal of Physiology and Pharmacology</i> , 2018, 69, .	1.1	9
72	Dietary fructose as a model to explore the influence of peripheral metabolism on brain function and plasticity. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2021, 1867, 166036.	1.8	8

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73	Diet and depression: future needs to unlock the potential. <i>Molecular Psychiatry</i> , 2022, 27, 778-780.	4.1	8
74	TBI and sex: Crucial role of progesterone protecting the brain in an omega <sup>3</sup> deficient condition. <i>Experimental Neurology</i> , 2014, 253, 41-51.	2.0	7
75	Female sex in experimental traumatic brain injury research: forging a path forward. <i>Neural Regeneration Research</i> , 2022, 17, 550.	1.6	7
76	Circuit reorganization after diffuse axonal injury: Utility of the whisker barrel circuit. , 2022, , 281-292.		3
77	Dietary Supplements as Cognitive Enhancers. , 2015, , 281-290.		2
78	Multi-Tissue Multi-Omics Nutrigenomics Indicates Context-Specific Effects of Docosahexaenoic Acid on Rat Brain. <i>Molecular Nutrition and Food Research</i> , 2020, 64, e2000788.	1.5	2
79	How to boost the effects of exercise to favor traumatic brain injury outcome. <i>Sports Medicine and Health Science</i> , 2022, 4, 147-151.	0.7	2
80	ISDN2014_0259: Inulin (a nondigestible oligosaccharide) supplements during pregnancy attenuates acrylamide-induced maternal and fetal brain oxidative dysfunctions, anxiety and neurotoxicity in rats. <i>International Journal of Developmental Neuroscience</i> , 2015, 47, 77-77.	0.7	1
81	Bacopa monnieri supplements offset motor and co-morbid behavioral pathology, oxidative impairments and neurotoxicity in an chronic environmental toxin model of Parkinson's disease in mice. <i>Parkinsonism and Related Disorders</i> , 2016, 22, e187.	1.1	1
82	The emerging roles of gut microbiome on neurotoxic outcomes: Implications for neurological disorders. , 2021, , 319-344.		1
83	Role of ECM in the Brain-Gut Connection. <i>FASEB Journal</i> , 2021, 35, .	0.2	0
84	Toxin-Induced Parkinson's Disease Models. <i>Neuro - Open Journal</i> , 2017, 4, e1-e5.	0.1	0
85	Physical Exercise as a Modulator of Vascular Pathology and Thrombin Generation to Improve Outcomes After Traumatic Brain Injury. <i>Molecular Neurobiology</i> , 2021, , 1.	1.9	0
86	Editorial to special issue of BBADIS: Brain-gut interaction and cognitive control. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2022, 1868, 166396.	1.8	0