

Santiago Canals

List of Publications by Year in descending order

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Version: 2024-02-01

72
papers

3,317
citations

159358

30
h-index

155451

55
g-index

79
all docs

79
docs citations

79
times ranked

4892
citing authors

#	ARTICLE	IF	CITATIONS
1	Parkin gene inactivation alters behaviour and dopamine neurotransmission in the mouse. <i>Human Molecular Genetics</i> , 2003, 12, 2277-2291.	1.4	462
2	ErbB4 Deletion from Fast-Spiking Interneurons Causes Schizophrenia-like Phenotypes. <i>Neuron</i> , 2013, 79, 1152-1168.	3.8	254
3	Avoiding catastrophic failure in correlated networks of networks. <i>Nature Physics</i> , 2014, 10, 762-767.	6.5	219
4	Widespread Vestibular Activation of the Rodent Cortex. <i>Journal of Neuroscience</i> , 2015, 35, 5926-5934.	1.7	104
5	Functional MRI Evidence for LTP-Induced Neural Network Reorganization. <i>Current Biology</i> , 2009, 19, 398-403.	1.8	103
6	Alcoholic liver disease: Utility of animal models. <i>World Journal of Gastroenterology</i> , 2018, 24, 5063-5075.	1.4	101
7	Nitric Oxide Triggers the Toxicity due to Glutathione Depletion in Midbrain Cultures through 12-Lipoxygenase. <i>Journal of Biological Chemistry</i> , 2003, 278, 21542-21549.	1.6	94
8	CBP is required for environmental enrichment-induced neurogenesis and cognitive enhancement. <i>EMBO Journal</i> , 2011, 30, 4287-4298.	3.5	89
9	Role of extracellular signal-regulated protein kinase in neuronal cell death induced by glutathione depletion in neuron/glia mesencephalic cultures. <i>Journal of Neurochemistry</i> , 2004, 91, 667-682.	2.1	88
10	Longitudinal Depolarization Gradients Along the Somatodendritic Axis of CA1 Pyramidal Cells: A Novel Feature of Spreading Depression. <i>Journal of Neurophysiology</i> , 2005, 94, 943-951.	0.9	84
11	Smart Magnetic Resonance Imaging Agents that Sense Extracellular Calcium Fluctuations. <i>ChemBioChem</i> , 2008, 9, 1729-1734.	1.3	84
12	Mapping of functional brain activity in freely behaving rats during voluntary running using manganese-enhanced MRI: Implication for longitudinal studies. <i>NeuroImage</i> , 2010, 49, 2544-2555.	2.1	84
13	Finding influential nodes for integration in brain networks using optimal percolation theory. <i>Nature Communications</i> , 2018, 9, 2274.	5.8	77
14	Magnetic resonance imaging of cortical connectivity in vivo. <i>NeuroImage</i> , 2008, 40, 458-472.	2.1	70
15	The Role of Astroglia on the Survival of Dopamine Neurons. <i>Molecular Neurobiology</i> , 2002, 25, 245-264.	1.9	63
16	Glutathione depletion switches nitric oxide neurotrophic effects to cell death in midbrain cultures: implications for Parkinson's disease. <i>Journal of Neurochemistry</i> , 2002, 79, 1183-1195.	2.1	59
17	Metabolic Challenge to Glia Activates an Adenosine-Mediated Safety Mechanism that Promotes Neuronal Survival by Delaying the Onset of Spreading Depression Waves. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2008, 28, 1835-1844.	2.4	59
18	Incubation of neural alcohol cue reactivity after withdrawal and its blockade by naltrexone. <i>Addiction Biology</i> , 2020, 25, e12717.	1.4	57

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19	Electric stimulation fMRI of the perforant pathway to the rat hippocampus. <i>Magnetic Resonance Imaging</i> , 2008, 26, 978-986.	1.0	50
20	Functional MRI of long-term potentiation: imaging network plasticity. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130152.	1.8	50
21	Neurotrophic and neurotoxic effects of nitric oxide on fetal midbrain cultures. <i>Journal of Neurochemistry</i> , 2008, 76, 56-68.	2.1	48
22	Amelioration of ischemic brain damage by peritoneal dialysis. <i>Journal of Clinical Investigation</i> , 2013, 123, 4359-4363.	3.9	48
23	Behavioral, electrophysiological and histopathological consequences of systemic manganese administration in MEMRI. <i>Magnetic Resonance Imaging</i> , 2010, 28, 1165-1174.	1.0	47
24	Adult newborn neurons are involved in learning acquisition and long-term memory formation: The distinct demands on temporal neurogenesis of different cognitive tasks. <i>Hippocampus</i> , 2015, 25, 51-61.	0.9	47
25	Different theta frameworks coexist in the rat hippocampus and are coordinated during memory-guided and novelty tasks. <i>ELife</i> , 2020, 9, .	2.8	47
26	Selective and persistent activation of extracellular signal-regulated protein kinase by nitric oxide in glial cells induces neuronal degeneration in glutathione-depleted midbrain cultures. <i>Molecular and Cellular Neurosciences</i> , 2003, 24, 1012-1026.	1.0	45
27	Increased Dosage of High-Affinity Kainate Receptor Gene <i>grik4</i> Alters Synaptic Transmission and Reproduces Autism Spectrum Disorders Features. <i>Journal of Neuroscience</i> , 2015, 35, 13619-13628.	1.7	41
28	Microstructural White Matter Alterations in Men With Alcohol Use Disorder and Rats With Excessive Alcohol Consumption During Early Abstinence. <i>JAMA Psychiatry</i> , 2019, 76, 749.	6.0	41
29	Brain activation induced by voluntary alcohol and saccharin drinking in rats assessed with manganese-enhanced magnetic resonance imaging. <i>Addiction Biology</i> , 2015, 20, 1012-1021.	1.4	39
30	Thiolic antioxidants protect from nitric oxide-induced toxicity in fetal midbrain cultures. <i>Neuropharmacology</i> , 2002, 43, 877-888.	2.0	36
31	Structural and functional, empirical and modeled connectivity in the cerebral cortex of the rat. <i>NeuroImage</i> , 2017, 159, 170-184.	2.1	36
32	Functional MRI in Mice Lacking IP ₃ -Dependent Calcium Signaling in Astrocytes. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2014, 34, 1599-1603.	2.4	35
33	Chronic alcohol consumption alters extracellular space geometry and transmitter diffusion in the brain. <i>Science Advances</i> , 2020, 6, eaba0154.	4.7	34
34	Frequency-Dependent Gating of Hippocampal-Neocortical Interactions. <i>Cerebral Cortex</i> , 2016, 26, 2105-2114.	1.6	33
35	Effect of Prenatal Uterine Position on Male and Female Rats Sexual Behavior. <i>Physiology and Behavior</i> , 1999, 67, 401-408.	1.0	31
36	Synaptically Recruited Apical Currents Are Required to Initiate Axonal and Apical Spikes in Hippocampal Pyramidal Cells: Modulation by Inhibition. <i>Journal of Neurophysiology</i> , 2005, 93, 909-918.	0.9	30

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37	Mapping microglia and astrocyte activation in vivo using diffusion MRI. <i>Science Advances</i> , 2022, 8, .	4.7	30
38	High frequency neurons determine effective connectivity in neuronal networks. <i>NeuroImage</i> , 2018, 166, 349-359.	2.1	29
39	In Vivo Characterization of a Smart MRI Agent That Displays an Inverse Response to Calcium Concentration. <i>ACS Chemical Neuroscience</i> , 2010, 1, 819-828.	1.7	27
40	KAT3-dependent acetylation of cell type-specific genes maintains neuronal identity in the adult mouse brain. <i>Nature Communications</i> , 2020, 11, 2588.	5.8	26
41	A Steady-State Model of Spreading Depression Predicts the Importance of an Unknown Conductance in Specific Dendritic Domains. <i>Biophysical Journal</i> , 2007, 92, 4216-4232.	0.2	22
42	Mapping Functional Connectivity in the Rodent Brain Using Electric-Stimulation fMRI. <i>Methods in Molecular Biology</i> , 2018, 1718, 117-134.	0.4	21
43	Glia-conditioned medium induces de novo synthesis of tyrosine hydroxylase and increases dopamine cell survival by differential signaling pathways. <i>Journal of Neuroscience Research</i> , 2003, 73, 818-830.	1.3	20
44	Neurophysiological, metabolic and cellular compartments that drive neurovascular coupling and neuroimaging signals. <i>Frontiers in Neuroenergetics</i> , 2013, 5, 3.	5.3	19
45	L-DOPA and glia-conditioned medium have additive effects on tyrosine hydroxylase expression in human catecholamine-rich neuroblastoma NB69 cells. <i>Journal of Neurochemistry</i> , 2001, 78, 535-545.	2.1	18
46	Nitric oxide induces differentiation in the NB69 human catecholamine-rich cell line. <i>Neuropharmacology</i> , 2000, 39, 2090-2100.	2.0	17
47	Multi-modal MRI classifiers identify excessive alcohol consumption and treatment effects in the brain. <i>Addiction Biology</i> , 2017, 22, 1459-1472.	1.4	17
48	Modulation of nucleus accumbens connectivity by alcohol drinking and naltrexone in alcohol-preferring rats: A manganese-enhanced magnetic resonance imaging study. <i>European Neuropsychopharmacology</i> , 2016, 26, 445-455.	0.3	15
49	Paradoxical augmented relapse in alcohol-dependent rats during deep-brain stimulation in the nucleus accumbens. <i>Translational Psychiatry</i> , 2016, 6, e840-e840.	2.4	14
50	Increased network centrality of the anterior insula in early abstinence from alcohol. <i>Addiction Biology</i> , 2022, 27, e13096.	1.4	14
51	From a systems view to spotting a hidden island: A narrative review implicating insula function in alcoholism. <i>Neuropharmacology</i> , 2022, 209, 108989.	2.0	14
52	Neurosurgery planning in rodents using a magnetic resonance imaging assisted framework to target experimentally defined networks. <i>Computer Methods and Programs in Biomedicine</i> , 2015, 121, 66-76.	2.6	12
53	Functional Interactions between Entorhinal Cortical Pathways Modulate Theta Activity in the Hippocampus. <i>Biology</i> , 2021, 10, 692.	1.3	10
54	Unsupervised segmentation of brain regions with similar microstructural properties: Application to alcoholism. , 2013, 2013, 1053-6.		9

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55	Improved Neuronal Tract Tracing with Stable Biocytin-Derived Neuroimaging Agents. ACS Chemical Neuroscience, 2010, 1, 129-138.	1.7	8
56	Biocytin-Derived MRI Contrast Agent for Longitudinal Brain Connectivity Studies. ACS Chemical Neuroscience, 2011, 2, 578-587.	1.7	8
57	On the role of the entorhinal cortex in the effective connectivity of the hippocampal formation. Chaos, 2017, 27, 047401.	1.0	8
58	Detecting Alcohol-Induced Brain Damage Noninvasively Using Diffusion Tensor Imaging. ACS Chemical Neuroscience, 2019, 10, 4187-4189.	1.7	8
59	Brain Network Allostasis after Chronic Alcohol Drinking Is Characterized by Functional Dedifferentiation and Narrowing. Journal of Neuroscience, 2022, 42, 4401-4413.	1.7	8
60	Brain size regulations by cbp haploinsufficiency evaluated by in-vivo MRI based volumetry. Scientific Reports, 2015, 5, 16256.	1.6	4
61	A Tangible Educative 3D Printed Atlas of the Rat Brain. Materials, 2018, 11, 1531.	1.3	4
62	Phenotyping the central nervous system of the embryonic mouse by magnetic resonance microscopy. NeuroImage, 2014, 97, 95-106.	2.1	3
63	Tuning noninvasive brain stimulation with MRI to cope with intersubject variability. Current Opinion in Neurology, 2016, 29, 453-458.	1.8	3
64	Neuroimaging reveals functionally distinct neuronal networks associated with high-level alcohol consumption in two genetic rat models. Behavioural Pharmacology, 2021, 32, 229-238.	0.8	3
65	Nitric Oxide and Dopamine Neurons. Implications for Parkinsons Disease. Current Medicinal Chemistry - Central Nervous System Agents, 2005, 5, 193-205.	0.6	2
66	Evaluating network brain connectivity in alcohol postdependent state using Network-Based Statistic. , 2017, 2017, 533-536.		2
67	Functional MRI of Synaptic Plasticity. Handbook of Behavioral Neuroscience, 2018, 28, 441-456.	0.7	2
68	Inferring correlations associated to causal interactions in brain signals using autoregressive models. Scientific Reports, 2019, 9, 17041.	1.6	2
69	Low-Power Lossless Data Compression for Wireless Brain Electrophysiology. Sensors, 2022, 22, 3676.	2.1	2
70	Biocytin-Based Contrast Agents for Molecular Imaging: An Approach to Developing New In Vivo Neuroanatomical Tracers for MRI. , 2012, , .		1
71	TherMouseDuino: An affordable Open-Source temperature control system for functional magnetic resonance imaging experimentation with mice. Magnetic Resonance Imaging, 2019, 58, 67-75.	1.0	1
72	Development of functional and structural brain alterations in logitudinal models of high alcohol consumption and abstinence. Alcohol, 2017, 60, 215.	0.8	0