Serge Rivest

List of Publications by Year
in descending order

123 papers	12,512 citations	31976 53 h-index	24982 109 g-index
128 all docs	128 docs citations	128 times ranked	13527 citing authors

#	Article	IF	Citations
1	Bone Marrow-Derived Microglia Play a Critical Role in Restricting Senile Plaque Formation in Alzheimer's Disease. Neuron, 2006, 49, 489-502.	8.1	1,123
2	Regulation of innate immune responses in the brain. Nature Reviews Immunology, 2009, 9, 429-439.	22.7	719
3	Expression and neuropeptidergic characterization of estrogen receptors (ER? and ER?) throughout the rat brain: Anatomical evidence of distinct roles of each subtype. Journal of Neurobiology, 1998, 36, 357-378.	3.6	525
4	Inefficient clearance of myelin debris by microglia impairs remyelinating processes. Journal of Experimental Medicine, 2015, 212, 481-495.	8.5	462
5	Tollâ€like receptor 4: the missing link of the cerebral innate immune response triggered by circulating gramâ€negative bacterial cell wall components. FASEB Journal, 2001, 15, 155-163.	0.5	450
6	Chemokine Expression by Glial Cells Directs Leukocytes to Sites of Axonal Injury in the CNS. Journal of Neuroscience, 2003, 23, 7922-7930.	3.6	434
7	Molecular insights on the cerebral innate immune system. Brain, Behavior, and Immunity, 2003, 17, 13-19.	4.1	374
8	Bone marrow stem cells have the ability to populate the entire central nervous system into fully differentiated parenchymal microglia. FASEB Journal, 2004, 18, 998-1000.	0.5	322
9	The HPA Ã¢â,¬â€œ Immune Axis and the Immunomodulatory Actions of Glucocorticoids in the Brain. Frontiers in Immunology, 2014, 5, 136.	4.8	304
10	Regulation of the Genes Encoding Interleukinâ€6, Its Receptor, and gp130 in the Rat Brain in Response to the Immune Activator Lipopolysaccharide and the Proinflammatory Cytokine Interleukinâ€1Î². Journal of Neurochemistry, 1997, 69, 1668-1683.	3.9	276
11	An Essential Role of Interleukin-1Î² in Mediating NF-Î°B Activity and COX-2 Transcription in Cells of the Bloodâ€"Brain Barrier in Response to a Systemic and Localized Inflammation But Not During Endotoxemia. Journal of Neuroscience, 1999, 19, 10923-10930.	3.6	258
12	Tollâ€like receptor (TLR)â€2 and TLRâ€4 regulate inflammation, gliosis, and myelin sparing after spinal cord injury. Journal of Neurochemistry, 2007, 102, 37-50.	3.9	257
13	Effect of Acute Systemic Inflammatory Response and Cytokines on the Transcription of the Genes Encoding Cyclooxygenase Enzymes (COXâ€1 and COXâ€2) in the Rat Brain. Journal of Neurochemistry, 1998, 70, 452-466.	3.9	238
14	Toll-like receptor 4 stimulation with the detoxified ligand monophosphoryl lipid A improves Alzheimerâ€™s disease-related pathology. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1941-1946.	7.1	225
15	Toll-Like Receptor Signaling Is Critical for Wallerian Degeneration and Functional Recovery after Peripheral Nerve Injury. Journal of Neuroscience, 2007, 27, 12565-12576.	3.6	221
16	Powerful beneficial effects of macrophage colony-stimulating factor on Â-amyloid deposition and cognitive impairment in Alzheimer's disease. Brain, 2008, 132, 1078-1092.	7.6	210
17	Role of Microglial-Derived Tumor Necrosis Factor in Mediating CD14 Transcription and Nuclear Factor Î° B Activity in the Brain during Endotoxemia. Journal of Neuroscience, 2000, 20, 3456-3468.	3.6	199
18	Immunosenescence of microglia and macrophages: impact on the ageing central nervous system. Brain, 2016, 139, 653-661.	7.6	199

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19	Distribution, regulation and colocalization of the genes encoding the EP₂â€•and EP₄â€PGE₂ receptors in the rat brain and neuronal responses to systemic inflammation. European Journal of Neuroscience, 1999, 11, 2651-2668.	2.6	196
20	Real-Time InÂVivo Imaging Reveals the Ability of Monocytes to Clear Vascular Amyloid Beta. Cell Reports, 2013, 5, 646-653.	6.4	195
21	The Bacterial Endotoxin Lipopolysaccharide has the Ability to Target the Brain in Upregulating Its Membrane CD14 Receptor Within Specific Cellular Populations. Brain Pathology, 1998, 8, 625-640.	4.1	193
22	Neuronal Activity and Neuropeptide Gene Transcription in the Brains of Immuneâ€Challenged Rats. Journal of Neuroendocrinology, 1995, 7, 501-525.	2.6	187
23	Circulating cell wall components derived from gramâ€negative, not gramâ€positive, bacteria cause a profound induction of the geneâ€encoding Tollâ€like receptor 2 in the CNS. Journal of Neurochemistry, 2001, 79, 648-657.	3.9	172
24	The dynamics of monocytes and microglia in Alzheimerâ€™s disease. Alzheimer's Research and Therapy, 2015, 7, 41.	6.2	168
25	Effects of Systemic Immunogenic Insults and Circulating Proinflammatory Cytokines on the Transcription of the Inhibitory Factor ÎºBÎ± Within Specific Cellular Populations of the Rat Brain. Journal of Neurochemistry, 2002, 73, 309-321.	3.9	161
26	Cooperation between tollâ€like receptorâ€„2 andâ€„4 in the brain of mice challenged with cell wall components derived from gramâ€negative and gramâ€positive bacteria. European Journal of Immunology, 2003, 33, 1127-1138.	2.9	157
27	Taking Advantage of the Systemic Immune System to Cure Brain Diseases. Neuron, 2009, 64, 55-60.	8.1	152
28	Interleukin-6 Is a Needed Proinflammatory Cytokine in the Prolonged Neural Activity and Transcriptional Activation of Corticotropin-Releasing Factor during Endotoxemia1. Endocrinology, 1999, 140, 3890-3903.	2.8	135
29	Bone-marrow-derived microglia: myth or reality?. Current Opinion in Pharmacology, 2008, 8, 508-518.	3.5	130
30	Induction of proinflammatory molecules in mice with amyotrophic lateral sclerosis: No requirement for proapoptotic interleukinâ€1Î² in neurodegeneration. Annals of Neurology, 2001, 50, 630-639.	5.3	126
31	Regulation of the Gene Encoding Tumor Necrosis Factor Alpha (TNF-Î±) in the Rat Brain and Pituitary in Response to Different Models of Systemic Immune Challenge. Journal of Neuropathology and Experimental Neurology, 1999, 58, 61-77.	1.7	125
32	Tumor Necrosis Factor Â But Not Interleukin 1Â Mediates Neuroprotection in Response to Acute Nitric Oxide Excitotoxicity. Journal of Neuroscience, 2006, 26, 143-151.	3.6	119
33	Functional circuitry in the brain of immune-challenged rats: Partial involvement of prostaglandins. , 1997, 387, 307-324.		109
34	Regulation of the gene encoding the monocyte chemoattractant protein 1 (MCP-1) in the mouse and rat brain in response to circulating LPS and proinflammatory cytokines. Journal of Comparative Neurology, 2001, 434, 461-477.	1.6	108
35	The Role of Pericytes in Neurovascular Unit Remodeling in Brain Disorders. International Journal of Molecular Sciences, 2014, 15, 6453-6474.	4.1	104
36	Microglia in Alzheimerâ€™s disease: A multifaceted relationship. Brain, Behavior, and Immunity, 2016, 55, 138-150.	4.1	98

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37	High fat diet exacerbates Alzheimer's disease-related pathology in APPswe/PS1 mice. Oncotarget, 2016, 7, 67808-67827.	1.8	94
38	Interactions Between the Immune and Neuroendocrine Systems. Progress in Brain Research, 2010, 181, 43-53.	1.4	89
39	Anti-inflammatory effects of prostaglandinâ€ƒE2 in the central nervous system in response to brain injury and circulating lipopolysaccharide. Journal of Neurochemistry, 2008, 76, 855-864.	3.9	87
40	A deficiency in CCR2+ monocytes: the hidden side of Alzheimer's disease. Journal of Molecular Cell Biology, 2013, 5, 284-293.	3.3	87
41	The early contribution of cerebrovascular factors to the pathogenesis of Alzheimerâ€™s disease. European Journal of Neuroscience, 2012, 35, 1917-1937.	2.6	77
42	The role of ABCB1 and ABCA1 in beta-amyloid clearance at the neurovascular unit in Alzheimer's disease. Frontiers in Physiology, 2013, 4, 45.	2.8	77
43	Innate Immune Cells: Monocytes, Monocyte-Derived Macrophages and Microglia as Therapeutic Targets for Alzheimerâ€™s Disease and Multiple Sclerosis. Frontiers in Cellular Neuroscience, 2019, 13, 355.	3.7	77
44	Microglia. Current Biology, 2008, 18, R506-R508.	3.9	76
45	Stimulation of Monocytes, Macrophages, and Microglia by Amphotericin B and Macrophage Colony-Stimulating Factor Promotes Remyelination. Journal of Neuroscience, 2015, 35, 1136-1148.	3.6	76
46	Neuroprotective effects of resident microglia following acute brain injury. Journal of Comparative Neurology, 2007, 504, 716-729.	1.6	75
47	Ultrastructural evidence of microglial heterogeneity in Alzheimerâ€™s disease amyloid pathology. Journal of Neuroinflammation, 2019, 16, 87.	7.2	73
48	Selective Involvement of Interleukin-6 in the Transcriptional Activation of the Suppressor of Cytokine Signaling-3 in the Brain during Systemic Immune Challenges*. Endocrinology, 2000, 141, 3749-3763.	2.8	71
49	Molecular and Cellular Immune Mediators of Neuroprotection. Molecular Neurobiology, 2006, 34, 221-242.	4.0	67
50	Chondroitin sulfate proteoglycans as novel drivers of leucocyte infiltration in multiple sclerosis. Brain, 2018, 141, 1094-1110.	7.6	67
51	A Functional Analysis of EP4 Receptor-Expressing Neurons in Mediating the Action of Prostaglandin E2 Within Specific Nuclei of the Brain in Response to Circulating Interleukin-1Î². Journal of Neurochemistry, 2008, 74, 2134-2145.	3.9	65
52	Effects of Myeloablation, Peripheral Chimerism, and Whole-Body Irradiation on the Entry of Bone Marrow-Derived Cells into the Brain. Cell Transplantation, 2012, 21, 1149-1159.	2.5	63
53	Effects of TNF-Î± and IFN-Î³ on Nitric Oxide-Induced Neurotoxicity in the Mouse Brain. Journal of Immunology, 2004, 172, 7043-7052.	0.8	62
54	Hematopoietic CC-Chemokine Receptor 2 (CCR2) Competent Cells Are Protective for the Cognitive Impairments and Amyloid Pathology in a Transgenic Mouse Model of Alzheimerâ€™s Disease. Molecular Medicine, 2012, 18, 297-313.	4.4	61

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55	Microglia Ontology and Signaling. Frontiers in Cell and Developmental Biology, 2016, 4, 72.	3.7	59
56	Mild chronic cerebral hypoperfusion induces neurovascular dysfunction, triggering peripheral beta-amyloid brain entry and aggregation. Acta Neuropathologica Communications, 2013, 1, 75.	5.2	58
57	Anti-inflammatory Signaling in Microglia Exacerbates Alzheimerâ€™s Disease-Related Pathology. Neuron, 2015, 85, 450-452.	8.1	57
58	Migration of Bone Marrowâ€Derived Cells Into the Central Nervous System in Models of Neurodegeneration. Journal of Comparative Neurology, 2013, 521, 3863-3876.	1.6	54
59	Influence of Interleukin-6 on Neural Activity and Transcription of the Gene Encoding Corticotrophin-releasing Factor in the Rat Brain: An Effect Depending Upon the Route of Administration. European Journal of Neuroscience, 1997, 9, 1461-1472.	2.6	51
60	Triggering of NOD2 Receptor Converts Inflammatory Ly6C high into Ly6C low Monocytes with Patrolling Properties. Cell Reports, 2017, 20, 1830-1843.	6.4	51
61	GPR84 deficiency reduces microgliosis, but accelerates dendritic degeneration and cognitive decline in a mouse model of Alzheimerâ€™s disease. Brain, Behavior, and Immunity, 2015, 46, 112-120.	4.1	50
62	Migration of Bone Marrowâ€Derived Cells Into the Central Nervous System in Models of Neurodegeneration. Journal of Comparative Neurology, 2013, 521, Spc1.	1.6	48
63	The Impact of Ly6C^{low} Monocytes after Cerebral Hypoxia-Ischemia in Adult Mice. Journal of Cerebral Blood Flow and Metabolism, 2014, 34, e1-e9.	4.3	48
64	MyD88-adaptor protein acts as a preventive mechanism for memory deficits in a mouse model of Alzheimer's disease. Molecular Neurodegeneration, 2011, 6, 5.	10.8	47
65	Evidence for a Gender-Specific Protective Role of Innate Immune Receptors in a Model of Perinatal Brain Injury. Journal of Neuroscience, 2013, 33, 11556-11572.	3.6	47
66	Bone marrow-derived macrophages and the CNS: An update on the use of experimental chimeric mouse models and bone marrow transplantation in neurological disorders. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2016, 1862, 310-322.	3.8	43
67	Alzheimerâ€™s disease: microglia targets and their modulation to promote amyloid phagocytosis and mitigate neuroinflammation. Expert Opinion on Therapeutic Targets, 2020, 24, 331-344.	3.4	43
68	Molecular mechanisms and neural pathways mediating the influence of interleukin-1 on the activity of neuroendocrine CRF motoneurons in the rat. International Journal of Developmental Neuroscience, 1995, 13, 135-146.	1.6	42
69	The complement system is an integrated part of the natural innate immune response in the brain. FASEB Journal, 2001, 15, 1410-1412.	0.5	42
70	mCSF-Induced Microglial Activation Prevents Myelin Loss and Promotes Its Repair in a Mouse Model of Multiple Sclerosis. Frontiers in Cellular Neuroscience, 2018, 12, 178.	3.7	42
71	Effect of dexfenfluramine on the transcriptional activation of CRF and its type 1 receptor within the paraventricular nucleus of the rat hypothalamus. British Journal of Pharmacology, 1996, 117, 1021-1034.	5.4	36
72	Role of adaptor protein MyD88 in TLR-mediated preconditioning and neuroprotection after acute excitotoxicity. Brain, Behavior, and Immunity, 2015, 46, 221-231.	4.1	35

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73	Interleukin-6 Is a Needed Proinflammatory Cytokine in the Prolonged Neural Activity and Transcriptional Activation of Corticotropin-Releasing Factor during Endotoxemia. Endocrinology, 1999, 140, 3890-3903.	2.8	35
74	Microglia: Senescence Impairs Clearance of Myelin Debris. Current Biology, 2016, 26, R772-R775.	3.9	34
75	Age-related changes in synaptic markers and monocyte subsets link the cognitive decline of APPSwe/PS1 mice. Frontiers in Cellular Neuroscience, 2012, 6, 51.	3.7	33
76	Microglia Purinoceptor P2Y6: An Emerging Therapeutic Target in CNS Diseases. Cells, 2020, 9, 1595.	4.1	33
77	Patrolling monocytes play a critical role in CX3CR1-mediated neuroprotection during excitotoxicity. Brain Structure and Function, 2015, 220, 1759-1776.	2.3	29
78	Conditional genetic deletion of CSF1 receptor in microglia ameliorates the physiopathology of Alzheimerâ€™s disease. Alzheimer's Research and Therapy, 2021, 13, 8.	6.2	29
79	Selective Involvement of Interleukin-6 in the Transcriptional Activation of the Suppressor of Cytokine Signaling-3 in the Brain during Systemic Immune Challenges. Endocrinology, 2000, 141, 3749-3763.	2.8	29
80	TREM2 enables amyloid Î² clearance by microglia. Cell Research, 2015, 25, 535-536.	12.0	28
81	Hematopoietic MyD88-adaptor Protein Acts as a Natural Defense Mechanism for Cognitive Deficits in Alzheimerâ€™s Disease. Stem Cell Reviews and Reports, 2012, 8, 898-904.	5.6	27
82	Tissue-Plasminogen Activator Attenuates Alzheimerâ€™s Disease-Related Pathology Development in APPswe/PS1 Mice. Neuropsychopharmacology, 2016, 41, 1297-1307.	5.4	26
83	Neuronal activity and transcription of proinflammatory cytokines, IÎºBÎ±, and iNOS in the mouse brain during acute endotoxemia and chronic infection with Trypanosoma brucei brucei. Journal of Neuroscience Research, 1999, 57, 801-816.	2.9	25
84	Cannabinoids in Microglia: A New Trick for Immune Surveillance and Neuroprotection. Neuron, 2006, 49, 4-8.	8.1	25
85	Severe chronic cerebral hypoperfusion induces microglial dysfunction leading to memory loss in APPswe/PS1 mice. Oncotarget, 2016, 7, 11864-11880.	1.8	25
86	Estrogen Receptor Transrepresses Brain Inflammation. Cell, 2011, 145, 495-497.	28.9	24
87	Impact of deficiency in CCR2 and CX3CR1 receptors on monocytes trafficking in herpes simplex virus encephalitis. Journal of General Virology, 2012, 93, 1294-1304.	2.9	24
88	New Therapeutic Avenues of mCSF for Brain Diseases and Injuries. Frontiers in Cellular Neuroscience, 2018, 12, 499.	3.7	24
89	Role of Macrophage Colony-Stimulating Factor Receptor on the Proliferation and Survival of Microglia Following Systemic Nerve and Cuprizone-Induced Injuries. Frontiers in Immunology, 2020, 11, 47.	4.8	24
90	Targeting Systemic Innate Immune Cells as a Therapeutic Avenue for Alzheimer Disease. Pharmacological Reviews, 2022, 74, 1-17.	16.0	23

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91	Câ€"C chemokine receptor type 2 (CCR2) signaling protects neonatal male mice with hypoxicâ€"ischemic hippocampal damage from developing spatial learning deficits. Behavioural Brain Research, 2015, 286, 146-151.	2.2	22
92	Targeting innate immunity to protect and cure Alzheimerâ€™s disease: opportunities and pitfalls. Molecular Psychiatry, 2021, 26, 5504-5515.	7.9	22
93	How the Blood Talks to the Brain Parenchyma and the Paraventricular Nucleus of the Hypothalamus During Systemic Inflammatory and Infectiousâ€ƒStimuli. Proceedings of the Society for Experimental Biology and Medicine, 2000, 223, 22-38.	1.8	22
94	An Early Microglial Response Is Needed To Efficiently Control Herpes Simplex Virus Encephalitis. Journal of Virology, 2020, 94, .	3.4	21
95	QUAKING Regulates Microexon Alternative Splicing of the Rho GTPase Pathway and Controls Microglia Homeostasis. Cell Reports, 2020, 33, 108560.	6.4	19
96	Sub-acute systemic erythropoietin administration reduces ischemic brain injury in an age-dependent manner. Oncotarget, 2016, 7, 35552-35561.	1.8	19
97	Corticotropin-releasing factor and glucocorticoid receptor (GR) gene expression in the paraventricular nucleus of immune-challenged transgenic mice expressing type II GR antisense ribonucleic acid. Journal of Molecular Neuroscience, 1997, 8, 165-179.	2.3	18
98	Immune Mechanisms Underlying the Beneficial Effects of Autologous Hematopoietic Stem Cell Transplantation in Multiple Sclerosis. Neurotherapeutics, 2011, 8, 643-649.	4.4	17
99	Role of the chemokine receptors CCR2 and CX3CR1 in an experimental model of thrombotic stroke. Brain, Behavior, and Immunity, 2018, 70, 280-292.	4.1	17
100	Muramyl dipeptide-mediated immunomodulation on monocyte subsets exerts therapeutic effects in a mouse model of Alzheimerâ€™s disease. Journal of Neuroinflammation, 2020, 17, 218.	7.2	16
101	Effect of Immune and Metabolic Challenges on the Luteinizing Hormone-Releasing Hormone Neuronal System in Cycling Female Rats: An Evaluation at the Transcriptional Level. Endocrinology, 1997, 138, 1374-1384.	2.8	16
102	IL-1RAcPb signaling regulates adaptive mechanisms in neurons that promote their long-term survival following excitotoxic insults. Frontiers in Cellular Neuroscience, 2013, 7, 9.	3.7	15
103	Beneficial Roles of Microglia and Growth Factors in MS, a Brief Review. Frontiers in Cellular Neuroscience, 2020, 14, 284.	3.7	15
104	Multifocal Cerebral Microinfarcts Modulate Early Alzheimerâ€™s Disease Pathology in a Sex-Dependent Manner. Frontiers in Immunology, 2021, 12, 813536.	4.8	15
105	A â€˜donâ€™t eat meâ€™ immune signal protects neuronal connections. Nature, 2018, 563, 42-43.	27.8	12
106	Contextâ€dependent transcriptional regulation of microglial proliferation. Glia, 2022, 70, 572-589.	4.9	12
107	Inflammatory Monocytes and Neutrophils Regulate Streptococcus suis-Induced Systemic Inflammation and Disease but Are Not Critical for the Development of Central Nervous System Disease in a Mouse Model of Infection. Infection and Immunity, 2020, 88, .	2.2	10
108	Luteinizing Hormone Secretion and Corticotropin-Releasing Factor Gene Expression in the Paraventricular Nucleus of Rhesus Monkeys Following Cortisol Synthesis Inhibition. Endocrinology, 1997, 138, 2249-2258.	2.8	10

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109	Early monocyte modulation by the non-erythropoietic peptide ARA 290 decelerates AD-like pathology progression. Brain, Behavior, and Immunity, 2022, 99, 363-382.	4.1	8
110	Corticotropin-releasing factor (CRF) and stress-related reproductive failure: The brain as a state of the art or the ovary as a novel clue?. Journal of Endocrinological Investigation, 1995, 18, 872-880.	3.3	7
111	Selective Immunomodulatory and Neuroprotective Effects of a NOD2 Receptor Agonist on Mouse Models of Multiple Sclerosis. Neurotherapeutics, 2021, 18, 889-904.	4.4	7
112	CX3CR1 in multiple sclerosis. Oncotarget, 2015, 6, 19946-19947.	1.8	6
113	Getting Too Old Too Quickly for Their Job: Senescent Glial Cells Promote Neurodegeneration. Neuron, 2018, 100, 777-779.	8.1	5
114	Bone Marrow Chimeras to Study Neuroinflammation. Current Protocols in Immunology, 2018, 123, e56.	3.6	5
115	Reduced melatonin levels may facilitate glioblastoma initiation in the subventricular zone. Expert Reviews in Molecular Medicine, 2022, 24, 1-8.	3.9	5
116	The Intellicage system provides a reproducible and standardized method to assess behavioral changes in cuprizone-induced demyelination mouse model. Behavioural Brain Research, 2021, 400, 113039.	2.2	4
117	PDK4 Inhibition Ameliorates Melatonin Therapy by Modulating Cerebral Metabolism and Remyelination in an EAE Demyelinating Mouse Model of Multiple Sclerosis. Frontiers in Immunology, 2022, 13, 862316.	4.8	4
118	Structural analysis of the microgliaâ€“interneuron interactions in the CA1 hippocampal area of the APP/PS1 mouse model of Alzheimer's disease. Journal of Comparative Neurology, 2022, 530, 1423-1437.	1.6	4
119	Triggering Innate Immune Receptors as New Therapies in Alzheimerâ€™s Disease and Multiple Sclerosis. Cells, 2021, 10, 2164.	4.1	3
120	Expression and neuropeptidergic characterization of estrogen receptors (ERÎ± and ERÎ²) throughout the rat brain: Anatomical evidence of distinct roles of each subtype. , 1998, 36, 357.		3
121	PRMT1 is required for the generation of MHC-associated microglia and remyelination in the central nervous system. Life Science Alliance, 2022, 5, e202201467.	2.8	3
122	Neuronal activity and transcription of proinflammatory cytokines, IÎºBÎ±, and iNOS in the mouse brain during acute endotoxemia and chronic infection with Trypanosoma brucei brucei. Journal of Neuroscience Research, 1999, 57, 801-816.	2.9	2
123	Arachidonate Metabolites in the Neurophysiological System: The Fever Pathway. , 0, , 463-472.		0