

Steven F Maier

List of Publications by Year in descending order

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Version: 2024-02-01

90
papers

7,594
citations

57719

44
h-index

54882

84
g-index

91
all docs

91
docs citations

91
times ranked

8695
citing authors

#	ARTICLE	IF	CITATIONS
1	Pathological pain and the neuroimmune interface. <i>Nature Reviews Immunology</i> , 2014, 14, 217-231.	10.6	703
2	Stressor controllability and learned helplessness: The roles of the dorsal raphe nucleus, serotonin, and corticotropin-releasing factor. <i>Neuroscience and Biobehavioral Reviews</i> , 2005, 29, 829-841.	2.9	606
3	Learned helplessness at fifty: Insights from neuroscience.. <i>Psychological Review</i> , 2016, 123, 349-367.	2.7	424
4	Morphine paradoxically prolongs neuropathic pain in rats by amplifying spinal NLRP3 inflammasome activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E3441-50.	3.3	292
5	Bi-directional immune-brain communication: Implications for understanding stress, pain, and cognition. <i>Brain, Behavior, and Immunity</i> , 2003, 17, 69-85.	2.0	254
6	Role of the medial prefrontal cortex in coping and resilience. <i>Brain Research</i> , 2010, 1355, 52-60.	1.1	237
7	Microglia inflammatory responses are controlled by an intrinsic circadian clock. <i>Brain, Behavior, and Immunity</i> , 2015, 45, 171-179.	2.0	207
8	Escapable and inescapable stress differentially alter extracellular levels of 5-HT in the basolateral amygdala of the rat. <i>Brain Research</i> , 1998, 812, 113-120.	1.1	188
9	Behavioral control, the medial prefrontal cortex, and resilience. <i>Dialogues in Clinical Neuroscience</i> , 2006, 8, 397-406.	1.8	182
10	Stress sounds the alarm: The role of the danger-associated molecular pattern HMGB1 in stress-induced neuroinflammatory priming. <i>Brain, Behavior, and Immunity</i> , 2015, 48, 1-7.	2.0	178
11	Stress Induces the Danger-Associated Molecular Pattern HMGB-1 in the Hippocampus of Male Sprague Dawley Rats: A Priming Stimulus of Microglia and the NLRP3 Inflammasome. <i>Journal of Neuroscience</i> , 2015, 35, 316-324.	1.7	177
12	5-Hydroxytryptamine 2C Receptors in the Basolateral Amygdala Are Involved in the Expression of Anxiety After Uncontrollable Traumatic Stress. <i>Biological Psychiatry</i> , 2010, 67, 339-345.	0.7	173
13	Danger Signals and Inflammasomes: Stress-Evoked Sterile Inflammation in Mood Disorders. <i>Neuropsychopharmacology</i> , 2017, 42, 36-45.	2.8	160
14	Exposure to inescapable but not escapable shock increases extracellular levels of 5-HT in the dorsal raphe nucleus of the rat. <i>Brain Research</i> , 1998, 783, 115-120.	1.1	153
15	High-fat diet and aging interact to produce neuroinflammation and impair hippocampal- and amygdalar-dependent memory. <i>Neurobiology of Aging</i> , 2017, 58, 88-101.	1.5	138
16	Chronic exposure to exogenous glucocorticoids primes microglia to pro-inflammatory stimuli and induces NLRP3 mRNA in the hippocampus. <i>Psychoneuroendocrinology</i> , 2014, 40, 191-200.	1.3	136
17	The contribution of the vagus nerve in interleukin-1 β -induced fever is dependent on dose. <i>American Journal of Physiology - Regulatory Integrative and Comparative Physiology</i> , 2001, 280, R929-R934.	0.9	133
18	High-fat diet consumption disrupts memory and primes elevations in hippocampal IL-1 β , an effect that can be prevented with dietary reversal or IL-1 receptor antagonism. <i>Brain, Behavior, and Immunity</i> , 2014, 42, 22-32.	2.0	127

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19	A robust activity marking system for exploring active neuronal ensembles. <i>ELife</i> , 2016, 5, .	2.8	115
20	Stress-induced neuroinflammatory priming: A liability factor in the etiology of psychiatric disorders. <i>Neurobiology of Stress</i> , 2016, 4, 62-70.	1.9	112
21	Behavioral control blunts reactions to contemporaneous and future adverse events: Medial prefrontal cortex plasticity and a corticostriatal network. <i>Neurobiology of Stress</i> , 2015, 1, 12-22.	1.9	110
22	The redox state of the alarmin HMGB1 is a pivotal factor in neuroinflammatory and microglial priming: A role for the NLRP3 inflammasome. <i>Brain, Behavior, and Immunity</i> , 2016, 55, 215-224.	2.0	106
23	The Alarmin HMGB1 Mediates Age-Induced Neuroinflammatory Priming. <i>Journal of Neuroscience</i> , 2016, 36, 7946-7956.	1.7	103
24	Immune-to-central nervous system communication and its role in modulating pain and cognition: Implications for cancer and cancer treatment. <i>Brain, Behavior, and Immunity</i> , 2003, 17, 125-131.	2.0	100
25	Nitroxidative Signaling Mechanisms in Pathological Pain. <i>Trends in Neurosciences</i> , 2016, 39, 862-879.	4.2	93
26	Selective activation of dorsal raphe nucleusâ€‘projecting neurons in the ventral medial prefrontal cortex by controllable stress. <i>European Journal of Neuroscience</i> , 2009, 30, 1111-1116.	1.2	86
27	Microglia: Neuroimmune-sensors of stress. <i>Seminars in Cell and Developmental Biology</i> , 2019, 94, 176-185.	2.3	86
28	SARS-CoV-2 spike S1 subunit induces neuroinflammatory, microglial and behavioral sickness responses: Evidence of PAMP-like properties. <i>Brain, Behavior, and Immunity</i> , 2022, 100, 267-277.	2.0	86
29	Neuroinflammatory priming to stress is differentially regulated in male and female rats. <i>Brain, Behavior, and Immunity</i> , 2018, 70, 257-267.	2.0	85
30	DREADDed microglia in pain: Implications for spinal inflammatory signaling in male rats. <i>Experimental Neurology</i> , 2018, 304, 125-131.	2.0	79
31	Uncontrollable, But Not Controllable, Stress Desensitizes 5-HT_{1A}Receptors in the Dorsal Raphe Nucleus. <i>Journal of Neuroscience</i> , 2011, 31, 14107-14115.	1.7	74
32	Medial prefrontal cortical activation modulates the impact of controllable and uncontrollable stressor exposure on a social exploration test of anxiety in the rat. <i>Stress</i> , 2009, 12, 445-450.	0.8	73
33	Inescapable shock activates serotonergic neurons in all raphe nuclei of rat. <i>Behavioural Brain Research</i> , 2004, 153, 233-239.	1.2	66
34	Immunization with <i>Mycobacterium vaccae</i> induces an anti-inflammatory milieu in the CNS: Attenuation of stress-induced microglial priming, alarmins and anxiety-like behavior. <i>Brain, Behavior, and Immunity</i> , 2018, 73, 352-363.	2.0	66
35	Greater glucocorticoid receptor activation in hippocampus of aged rats sensitizes microglia. <i>Neurobiology of Aging</i> , 2015, 36, 1483-1495.	1.5	62
36	The danger-associated molecular pattern HMGB1 mediates the neuroinflammatory effects of methamphetamine. <i>Brain, Behavior, and Immunity</i> , 2016, 51, 99-108.	2.0	60

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37	Protraction of neuropathic pain by morphine is mediated by spinal damage associated molecular patterns (DAMPs) in male rats. <i>Brain, Behavior, and Immunity</i> , 2018, 72, 45-50.	2.0	60
38	Methamphetamine Activates Toll-Like Receptor 4 to Induce Central Immune Signaling within the Ventral Tegmental Area and Contributes to Extracellular Dopamine Increase in the Nucleus Accumbens Shell. <i>ACS Chemical Neuroscience</i> , 2019, 10, 3622-3634.	1.7	60
39	Morphine amplifies mechanical allodynia via TLR4 in a rat model of spinal cord injury. <i>Brain, Behavior, and Immunity</i> , 2016, 58, 348-356.	2.0	58
40	Stress-induced neuroinflammatory priming is time of day dependent. <i>Psychoneuroendocrinology</i> , 2016, 66, 82-90.	1.3	58
41	Stress disinhibits microglia via down-regulation of CD200R: A mechanism of neuroinflammatory priming. <i>Brain, Behavior, and Immunity</i> , 2018, 69, 62-73.	2.0	58
42	Stress and aging act through common mechanisms to elicit neuroinflammatory priming. <i>Brain, Behavior, and Immunity</i> , 2018, 73, 133-148.	2.0	57
43	Glucocorticoids Mediate Short-Term High-Fat Diet Induction of Neuroinflammatory Priming, the NLRP3 Inflammasome, and the Danger Signal HMGB1. <i>ENeuro</i> , 2016, 3, ENEURO.0113-16.2016.	0.9	54
44	Diminished circadian rhythms in hippocampal microglia may contribute to age-related neuroinflammatory sensitization. <i>Neurobiology of Aging</i> , 2016, 47, 102-112.	1.5	54
45	Behavioral assessment of neuropathic pain, fatigue, and anxiety in experimental autoimmune encephalomyelitis (EAE) and attenuation by interleukin-10 gene therapy. <i>Brain, Behavior, and Immunity</i> , 2017, 59, 49-54.	2.0	50
46	Activation of a Habenulo-Raphe Circuit Is Critical for the Behavioral and Neurochemical Consequences of Uncontrollable Stress in the Male Rat. <i>ENeuro</i> , 2016, 3, ENEURO.0229-16.2016.	0.9	50
47	Posterior insular cortex is necessary for conditioned inhibition of fear. <i>Neurobiology of Learning and Memory</i> , 2016, 134, 317-327.	1.0	49
48	Systemic Administration of Propentofylline, Ibudilast, and (+)-Naltrexone Each Reverses Mechanical Allodynia in a Novel Rat Model of Central Neuropathic Pain. <i>Journal of Pain</i> , 2014, 15, 407-421.	0.7	45
49	<i>Mycobacterium vaccae</i> immunization protects aged rats from surgery-elicited neuroinflammation and cognitive dysfunction. <i>Neurobiology of Aging</i> , 2018, 71, 105-114.	1.5	45
50	Suppression of Voluntary Wheel Running in Rats Is Dependent on the Site of Inflammation: Evidence for Voluntary Running as a Measure of Hind Paw-Evoked Pain. <i>Journal of Pain</i> , 2014, 15, 121-128.	0.7	42
51	Exploring acute-to-chronic neuropathic pain in rats after contusion spinal cord injury. <i>Experimental Neurology</i> , 2017, 295, 46-54.	2.0	42
52	Running Reduces Uncontrollable Stress-Evoked Serotonin and Potentiates Stress-Evoked Dopamine Concentrations in the Rat Dorsal Striatum. <i>PLoS ONE</i> , 2015, 10, e0141898.	1.1	41
53	Controllable stress elicits circuit-specific patterns of prefrontal plasticity in males, but not females. <i>Brain Structure and Function</i> , 2019, 224, 1831-1843.	1.2	38
54	Behavioural and neural sequelae of stressor exposure are not modulated by controllability in females. <i>European Journal of Neuroscience</i> , 2018, 47, 959-967.	1.2	37

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55	Electrolytic lesions and pharmacological inhibition of the dorsal raphe nucleus prevent stressor potentiation of morphine conditioned place preference in rats. <i>Psychopharmacology</i> , 2004, 171, 191-198.	1.5	34
56	Repeated Morphine Prolongs Postoperative Pain in Male Rats. <i>Anesthesia and Analgesia</i> , 2019, 128, 161-167.	1.1	33
57	Postoperative cognitive dysfunction is made persistent with morphine treatment in aged rats. <i>Neurobiology of Aging</i> , 2021, 98, 214-224.	1.5	33
58	Spinal Cord Injury in Rats Disrupts the Circadian System. <i>ENeuro</i> , 2018, 5, ENEURO.0328-18.2018.	0.9	32
59	Pattern recognition receptors mediate pro-inflammatory effects of extracellular mitochondrial transcription factor A (TFAM). <i>Molecular and Cellular Neurosciences</i> , 2018, 89, 71-79.	1.0	30
60	Sustained reversal of central neuropathic pain induced by a single intrathecal injection of adenosine A2A receptor agonists. <i>Brain, Behavior, and Immunity</i> , 2018, 69, 470-479.	2.0	29
61	Learned stressor resistance requires extracellular signal-regulated kinase in the prefrontal cortex. <i>Frontiers in Behavioral Neuroscience</i> , 2014, 8, 348.	1.0	28
62	A novel platform for in vivo detection of cytokine release within discrete brain regions. <i>Brain, Behavior, and Immunity</i> , 2018, 71, 18-22.	2.0	28
63	Acute stress induces chronic neuroinflammatory, microglial and behavioral priming: A role for potentiated NLRP3 inflammasome activation. <i>Brain, Behavior, and Immunity</i> , 2020, 89, 32-42.	2.0	28
64	Aging and miR-155 in mice influence survival and neuropathic pain after spinal cord injury. <i>Brain, Behavior, and Immunity</i> , 2021, 97, 365-370.	2.0	28
65	Two models of inescapable stress increase tph2 mRNA expression in the anxiety-related dorsomedial part of the dorsal raphe nucleus. <i>Neurobiology of Stress</i> , 2018, 8, 68-81.	1.9	26
66	MicroRNA-124 and microRNA-146a both attenuate persistent neuropathic pain induced by morphine in male rats. <i>Brain Research</i> , 2018, 1692, 9-11.	1.1	25
67	Could Probiotics Be Used to Mitigate Neuroinflammation?. <i>ACS Chemical Neuroscience</i> , 2019, 10, 13-15.	1.7	25
68	Supradural inflammatory soup in awake and freely moving rats induces facial allodynia that is blocked by putative immune modulators. <i>Brain Research</i> , 2017, 1664, 87-94.	1.1	20
69	Glucocorticoids mediate stress induction of the alarmin HMGB1 and reduction of the microglia checkpoint receptor CD200R1 in limbic brain structures. <i>Brain, Behavior, and Immunity</i> , 2019, 80, 678-687.	2.0	18
70	Oxycodone, fentanyl, and morphine amplify established neuropathic pain in male rats. <i>Pain</i> , 2019, 160, 2634-2640.	2.0	18
71	Effects of Adolescent Caffeine Consumption on Cocaine Sensitivity. <i>Neuropsychopharmacology</i> , 2015, 40, 813-821.	2.8	17
72	Spinal Cord Injury in Rats Dysregulates Diurnal Rhythms of Fecal Output and Liver Metabolic Indicators. <i>Journal of Neurotrauma</i> , 2019, 36, 1923-1934.	1.7	16

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73	Circadian misalignment has differential effects on affective behavior following exposure to controllable or uncontrollable stress. <i>Behavioural Brain Research</i> , 2019, 359, 440-445.	1.2	16
74	Experimental autoimmune encephalopathy (EAE)-induced hippocampal neuroinflammation and memory deficits are prevented with the non-opioid TLR2/TLR4 antagonist (+)-naltrexone. <i>Behavioural Brain Research</i> , 2021, 396, 112896.	1.2	16
75	Anxiogenic effects of brief swim stress are sensitive to stress history. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 2013, 44, 17-22.	2.5	15
76	Aging and an Immune Challenge Interact to Produce Prolonged, but Not Permanent, Reductions in Hippocampal L-LTP and mBDNF in a Rodent Model with Features of Delirium. <i>ENeuro</i> , 2018, 5, ENEURO.0009-18.2018.	0.9	15
77	Adenosine 2A receptor agonism: A single intrathecal administration attenuates motor paralysis in experimental autoimmune encephalopathy in rats. <i>Brain, Behavior, and Immunity</i> , 2015, 46, 50-54.	2.0	14
78	A single peri-sciatic nerve administration of the adenosine 2A receptor agonist ATL313 produces long-lasting anti-allodynia and anti-inflammatory effects in male rats. <i>Brain, Behavior, and Immunity</i> , 2019, 76, 116-125.	2.0	14
79	New tools for understanding coping and resilience. <i>Neuroscience Letters</i> , 2019, 693, 54-57.	1.0	14
80	Select steroid hormone glucuronide metabolites can cause toll-like receptor 4 activation and enhanced pain. <i>Brain, Behavior, and Immunity</i> , 2015, 44, 128-136.	2.0	13
81	Preconditioning by voluntary wheel running attenuates later neuropathic pain via nuclear factor E2-related factor 2 antioxidant signaling in rats. <i>Pain</i> , 2022, 163, 1939-1951.	2.0	13
82	Comparing the effects of two different strains of mycobacteria, <i>Mycobacterium vaccae</i> NCTC 11659 and <i>M. vaccae</i> ATCC 15483, on stress-resilient behaviors and lipid-immune signaling in rats. <i>Brain, Behavior, and Immunity</i> , 2021, 91, 212-229.	2.0	12
83	Toll-like receptor 2 and 4 antagonism for the treatment of experimental autoimmune encephalomyelitis (EAE)-related pain. <i>Brain, Behavior, and Immunity</i> , 2021, 93, 80-95.	2.0	11
84	Acute stress induces the rapid and transient induction of caspase-1, gasdermin D and release of constitutive IL-1 β protein in dorsal hippocampus. <i>Brain, Behavior, and Immunity</i> , 2020, 90, 70-80.	2.0	9
85	Suppression of active phase voluntary wheel running in male rats by unilateral chronic constriction injury: Enduring therapeutic effects of a brief treatment of morphine combined with TLR4 or P2X7 antagonists. <i>Journal of Neuroscience Research</i> , 2022, 100, 265-277.	1.3	8
86	The role of hepatic and splenic macrophages in <i>E. coli</i> -induced memory impairments in aged rats. <i>Brain, Behavior, and Immunity</i> , 2015, 43, 60-67.	2.0	7
87	Stable, long-term, spatial memory in young and aged rats achieved with a one day Morris water maze training protocol. <i>Learning and Memory</i> , 2016, 23, 699-702.	0.5	7
88	The behavioral and neurochemical effects of an inescapable stressor are time of day dependent. <i>Stress</i> , 2020, 23, 405-416.	0.8	5
89	Constriction of the buccal branch of the facial nerve produces unilateral craniofacial allodynia. <i>Brain, Behavior, and Immunity</i> , 2017, 64, 59-64.	2.0	4
90	Alzheimer's Disease: Protective Effects of <i>Mycobacterium vaccae</i> , a Soil-Derived Mycobacterium with Anti-Inflammatory and Anti-Tubercular Properties, on the Proteomic Profiles of Plasma and Cerebrospinal Fluid in Rats. <i>Journal of Alzheimer's Disease</i> , 2020, 78, 965-987.	1.2	4