Robyn S Klein

List of Publications by Year
in descending order

107 papers	10,908 citations	30070 54 h-index	32842 100 g-index
114 all docs	114 docs citations	114 times ranked	15787 citing authors

#	Article	IF	Citations
1	Zika Virus Infection during Pregnancy in Mice Causes Placental Damage and Fetal Demise. Cell, 2016, 165, 1081-1091.	28.9	737
2	A small-molecule antagonist of CXCR4 inhibits intracranial growth of primary brain tumors. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 13513-13518.	7.1	590
3	Resistance to Experimental Autoimmune Encephalomyelitis in Mice Lacking the Cc Chemokine Receptor (Ccr2). Journal of Experimental Medicine, 2000, 192, 1075-1080.	8.5	553
4	A complementâ€“microglial axis drives synapse loss during virus-induced memory impairment. Nature, 2016, 534, 538-543.	27.8	534
5	Neuronal CXCL10 Directs CD8⁺T-Cell Recruitment and Control of West Nile Virus Encephalitis. Journal of Virology, 2005, 79, 11457-11466.	3.4	386
6	Ephrin-B Reverse Signaling Is Mediated by a Novel PDZ-RGS Protein and Selectively Inhibits G Proteinâ€“Coupled Chemoattraction. Cell, 2001, 105, 69-79.	28.9	356
7	Quantification of increased cellularity during inflammatory demyelination. Brain, 2011, 134, 3590-3601.	7.6	317
8	How COVID-19 Affects the Brain. JAMA Psychiatry, 2021, 78, 682.	11.0	286
9	COVID-19 neuropathology at Columbia University Irving Medical Center/New York Presbyterian Hospital. Brain, 2021, 144, 2696-2708.	7.6	254
10	Changes in B- and T-Lymphocyte and Chemokine Levels With Rituximab Treatment in Multiple Sclerosis. Archives of Neurology, 2010, 67, 707-14.	4.5	227
11	TREM2 regulates microglial cell activation in response to demyelination in vivo. Acta Neuropathologica, 2015, 129, 429-447.	7.7	224
12	Detecting axon damage in spinal cord from a mouse model of multiple sclerosis. Neurobiology of Disease, 2006, 21, 626-632.	4.4	220
13	CXCL12 Limits Inflammation by Localizing Mononuclear Infiltrates to the Perivascular Space during Experimental Autoimmune Encephalomyelitis. Journal of Immunology, 2006, 177, 8053-8064.	0.8	215
14	CXCR4 promotes differentiation of oligodendrocyte progenitors and remyelination. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11062-11067.	7.1	200
15	Interferon-Î» restricts West Nile virus neuroinvasion by tightening the blood-brain barrier. Science Translational Medicine, 2015, 7, 284ra59.	12.4	197
16	CXCR7 influences leukocyte entry into the CNS parenchyma by controlling abluminal CXCL12 abundance during autoimmunity. Journal of Experimental Medicine, 2011, 208, 327-339.	8.5	194
17	Sex Drives Dimorphic Immune Responses to Viral Infections. Journal of Immunology, 2017, 198, 1782-1790.	0.8	183
18	Viral Pathogen-Associated Molecular Patterns Regulate Blood-Brain Barrier Integrity via Competing Innate Cytokine Signals. MBio, 2014, 5, e01476-14.	4.1	179

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19	Trojan Horse Transit Contributes to Blood-Brain Barrier Crossing of a Eukaryotic Pathogen. MBio, 2017, 8, .	4.1	176
20	Sex differences in cancer mechanisms. Biology of Sex Differences, 2020, 11, 17.	4.1	169
21	Pathological Expression of CXCL12 at the Blood-Brain Barrier Correlates with Severity of Multiple Sclerosis. American Journal of Pathology, 2008, 172, 799-808.	3.8	168
22	Infectious immunity in the central nervous system and brain function. Nature Immunology, 2017, 18, 132-141.	14.5	163
23	CXCR3 Mediates Region-Specific Antiviral T Cell Trafficking within the Central Nervous System during West Nile Virus Encephalitis. Journal of Immunology, 2008, 180, 2641-2649.	0.8	154
24	T cells promote microglia-mediated synaptic elimination and cognitive dysfunction during recovery from neuropathogenic flaviviruses. Nature Neuroscience, 2019, 22, 1276-1288.	14.8	146
25	2â€²-O Methylation of the Viral mRNA Cap by West Nile Virus Evades Ifit1-Dependent and -Independent Mechanisms of Host Restriction In Vivo. PLoS Pathogens, 2012, 8, e1002698.	4.7	142
26	Protective and Pathological Immunity during Central Nervous System Infections. Immunity, 2017, 46, 891-909.	14.3	123
27	IFN-Inducible Protein 10/CXC Chemokine Ligand 10-Independent Induction of Experimental Autoimmune Encephalomyelitis. Journal of Immunology, 2004, 172, 550-559.	0.8	122
28	CXCR4 antagonism increases T cell trafficking in the central nervous system and improves survival from West Nile virus encephalitis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11270-11275.	7.1	119
29	Chemokines in the balance: maintenance of homeostasis and protection at CNS barriers. Frontiers in Cellular Neuroscience, 2014, 8, 154.	3.7	118
30	The TAM receptor Mertk protects against neuroinvasive viral infection by maintaining blood-brain barrier integrity. Nature Medicine, 2015, 21, 1464-1472.	30.7	113
31	Astrocyte TNFR2 is required for CXCL12-mediated regulation of oligodendrocyte progenitor proliferation and differentiation within the adult CNS. Acta Neuropathologica, 2012, 124, 847-860.	7.7	112
32	Immune and nervous system CXCL12 and CXCR4: parallel roles in patterning and plasticity. Trends in Immunology, 2004, 25, 306-314.	6.8	110
33	Neuroinflammation During RNA Viral Infections. Annual Review of Immunology, 2019, 37, 73-95.	21.8	107
34	Enhanced sphingosine-1-phosphate receptor 2 expression underlies female CNS autoimmunity susceptibility. Journal of Clinical Investigation, 2014, 124, 2571-2584.	8.2	107
35	Astrocytes decrease adult neurogenesis during virus-induced memory dysfunction via IL-1. Nature Immunology, 2018, 19, 151-161.	14.5	105
36	Tumor Necrosis Factor Alpha Protects against Lethal West Nile Virus Infection by Promoting Trafficking of Mononuclear Leukocytes into the Central Nervous System. Journal of Virology, 2008, 82, 8956-8964.	3.4	101

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37	CSF1R antagonism limits local restimulation of antiviral CD8+ T cells during viral encephalitis. Journal of Neuroinflammation, 2019, 16, 22.	7.2	100
38	Regional astrocyte IFN signaling restricts pathogenesis during neurotropic viral infection. Journal of Clinical Investigation, 2017, 127, 843-856.	8.2	100
39	The Olfactory Bulb: An Immunosensory Effector Organ during Neurotropic Viral Infections. ACS Chemical Neuroscience, 2016, 7, 464-469.	3.5	98
40	The Innate Immune Adaptor Molecule MyD88 Restricts West Nile Virus Replication and Spread in Neurons of the Central Nervous System. Journal of Virology, 2010, 84, 12125-12138.	3.4	96
41	Immortalized human cerebral microvascular endothelial cells maintain the properties of primary cells in an in vitro model of immune migration across the blood brain barrier. Journal of Neuroscience Methods, 2013, 212, 173-179.	2.5	96
42	Mycobacterium tuberculosis carrying a rifampicin drug resistance mutation reprograms macrophage metabolism through cell wall lipid changes. Nature Microbiology, 2018, 3, 1099-1108.	13.3	90
43	West Nile virus: crossing the blood-brain barrier. Nature Medicine, 2004, 10, 1294-1295.	30.7	85
44	Speaking out about gender imbalance in invited speakers improves diversity. Nature Immunology, 2017, 18, 475-478.	14.5	81
45	CD40-CD40 Ligand Interactions Promote Trafficking of CD8 ⁺ T Cells into the Brain and Protection against West Nile Virus Encephalitis. Journal of Virology, 2007, 81, 9801-9811.	3.4	80
46	IL-1R Signaling within the Central Nervous System Regulates CXCL12 Expression at the Blood-Brain Barrier and Disease Severity during Experimental Autoimmune Encephalomyelitis. Journal of Immunology, 2009, 183, 613-620.	0.8	77
47	Encephalitic Arboviruses: Emergence, Clinical Presentation, and Neuropathogenesis. Neurotherapeutics, 2016, 13, 514-534.	4.4	77
48	IL-1R1 is required for dendritic cellâ€“mediated T cell reactivation within the CNS during West Nile virus encephalitis. Journal of Experimental Medicine, 2013, 210, 503-516.	8.5	75
49	Viral Encephalitis and Neurologic Diseases: Focus on Astrocytes. Trends in Molecular Medicine, 2018, 24, 950-962.	6.7	75
50	Bone Marrow Transplantation Augments the Effect of Brain- and Spinal Cord-Directed Adeno-Associated Virus 2/5 Gene Therapy by Altering Inflammation in the Murine Model of Globoid-Cell Leukodystrophy. Journal of Neuroscience, 2011, 31, 9945-9957.	3.6	73
51	Targeting Monocyte Recruitment in CNS Autoimmune Disease. Clinical Immunology, 2002, 103, 125-131.	3.2	72
52	Mechanisms of Pathogen Invasion into the Central Nervous System. Neuron, 2019, 103, 771-783.	8.1	72
53	Virus entry and replication in the brain precedes blood-brain barrier disruption during intranasal alphavirus infection. Journal of Neuroimmunology, 2017, 308, 118-130.	2.3	69
54	Mediators of oligodendrocyte differentiation during remyelination. FEBS Letters, 2011, 585, 3730-3737.	2.8	61

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55	Plasmodium falciparum Histidine-Rich Protein II Compromises Brain Endothelial Barriers and May Promote Cerebral Malaria Pathogenesis. MBio, 2016, 7, .	4.1	58
56	IL-1R1 Signaling Regulates CXCL12-Mediated T Cell Localization and Fate within the Central Nervous System during West Nile Virus Encephalitis. Journal of Immunology, 2014, 193, 4095-4106.	0.8	53
57	Targeting CXCR7/ACKR3 as a therapeutic strategy to promote remyelination in the adult central nervous system. Journal of Experimental Medicine, 2014, 211, 791-799.	8.5	53
58	A Tumor Necrosis Factor Receptor 1-Dependent Conversation between Central Nervous System-Specific T Cells and the Central Nervous System Is Required for Inflammatory Infiltration of the Spinal Cord. American Journal of Pathology, 2006, 168, 1200-1209.	3.8	49
59	Regulation of neuroinflammation: The role of CXCL10 in lymphocyte infiltration during autoimmune encephalomyelitis. Journal of Cellular Biochemistry, 2004, 92, 213-222.	2.6	44
60	Heterogeneous expression of carâ˜ypeptidase E and proenkephalin mRNAs by cultured astrocytes. Brain Research, 1992, 569, 300-310.	2.2	42
61	CXCR7 antagonism prevents axonal injury during experimental autoimmune encephalomyelitis as revealed by in vivoaxial diffusivity. Journal of Neuroinflammation, 2011, 8, 170.	7.2	41
62	Neuroinflammation and COVID-19. Current Opinion in Neurobiology, 2022, 76, 102608.	4.2	40
63	TNF-Î±-dependent regulation of CXCR3 expression modulates neuronal survival during West Nile virus encephalitis. Journal of Neuroimmunology, 2010, 224, 28-38.	2.3	39
64	CCR2 Signaling Restricts SARS-CoV-2 Infection. MBio, 2021, 12, e0274921.	4.1	38
65	Preconditioning-induced CXCL12 upregulation minimizes leukocyte infiltration after stroke in ischemia-tolerant mice. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 801-813.	4.3	37
66	Immunological headgear: antiviral immune responses protect against neuroinvasive West Nile virus. Trends in Molecular Medicine, 2008, 14, 286-294.	6.7	36
67	Rituximab combination therapy in relapsing multiple sclerosis. Therapeutic Advances in Neurological Disorders, 2012, 5, 311-319.	3.5	36
68	Astrocyteâ€T cell crosstalk regulates regionâ€specific neuroinflammation. Glia, 2020, 68, 1361-1374.	4.9	36
69	CCR5 limits cortical viral loads during West Nile virus infection of the central nervous system. Journal of Neuroinflammation, 2015, 12, 233.	7.2	34
70	Encephalitic Alphaviruses Exploit Caveola-Mediated Transcytosis at the Blood-Brain Barrier for Central Nervous System Entry. MBio, 2020, 11, .	4.1	34
71	Peli1 facilitates virus replication and promotes neuroinflammation during West Nile virus infection. Journal of Clinical Investigation, 2018, 128, 4980-4991.	8.2	34
72	Secretion of Carboxypeptidase E from Cultured Astrocytes and from AtT-20 Cells, a Neuroendocrine Cell Line: Implications for Neuropeptide Biosynthesis. Journal of Neurochemistry, 1992, 58, 2011-2018.	3.9	33

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73	A genetic basis for human susceptibility to West Nile virus. Trends in Microbiology, 2006, 14, 287-289.	7.7	33
74	Knocking on Closed Doors: Host Interferons Dynamically Regulate Blood-Brain Barrier Function during Viral Infections of the Central Nervous System. PLoS Pathogens, 2015, 11, e1005096.	4.7	30
75	Therapeutic enhancement of bloodâ€“brain and bloodâ€“tumor barriers permeability by laser interstitial thermal therapy. Neuro-Oncology Advances, 2020, 2, vdaa071.	0.7	29
76	Region-specific regulation of inflammation and pathogenesis in experimental autoimmune encephalomyelitis. Journal of Neuroimmunology, 2006, 181, 122-132.	2.3	22
77	Update on T cells in the virally infected brain: friends and foes. Current Opinion in Neurology, 2020, 33, 405-412.	3.6	21
78	A potent and selective C-11 labeled PET tracer for imaging sphingosine-1-phosphate receptor 2 in the CNS demonstrates sexually dimorphic expression. Organic and Biomolecular Chemistry, 2015, 13, 7928-7939.	2.8	20
79	Viral interactions with the blood-brain barrier: old dog, new tricks. Tissue Barriers, 2016, 4, e1142492.	3.2	20
80	Plasmodium falciparum histidine-rich protein II causes vascular leakage and exacerbates experimental cerebral malaria in mice. PLoS ONE, 2017, 12, e0177142.	2.5	19
81	Cultured astrocytes express mRNA for peptidylglycine-Î±-amidating monooxygenase, a neuropeptide processing enzyme. Brain Research, 1992, 596, 202-208.	2.2	18
82	MicroRNA signature of central nervous systemâ€infiltrating dendritic cells in an animal model of multiple sclerosis. Immunology, 2018, 155, 112-122.	4.4	18
83	Differential <i>In Vitro</i> Infection of Neural Cells by Astroviruses. MBio, 2019, 10, .	4.1	18
84	Neuroprotective versus Neuroinflammatory Roles of Complement: From Development to Disease. Trends in Neurosciences, 2021, 44, 97-109.	8.6	17
85	Infection and inflammation: New perspectives on Alzheimer's disease. Brain, Behavior, & Immunity - Health, 2022, 22, 100462.	2.5	17
86	Congenitally Acquired Persistent Lymphocytic Choriomeningitis Viral Infection Reduces Neuronal Progenitor Pools in the Adult Hippocampus and Subventricular Zone. PLoS ONE, 2014, 9, e96442.	2.5	15
87	Levels of Circulating NS1 Impact West Nile Virus Spread to the Brain. Journal of Virology, 2021, 95, e0084421.	3.4	13
88	Type III Interferons: Emerging Roles in Autoimmunity. Frontiers in Immunology, 2021, 12, 764062.	4.8	13
89	Chemokines Referee Inflammation within the Central Nervous System during Infection and Disease. Advances in Medicine, 2014, 2014, 1-10.	0.8	12
90	IL-1 reprogramming of adult neural stem cells limits neurocognitive recovery after viral encephalitis by maintaining a proinflammatory state. Brain, Behavior, and Immunity, 2022, 99, 383-396.	4.1	12

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91	Mechanisms of coronavirus infectious disease 2019-related neurologic diseases. Current Opinion in Neurology, 2022, 35, 392-398.	3.6	11
92	Design and synthesis of pyrazolopyridine derivatives as sphingosine 1-phosphate receptor 2 ligands. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 488-496.	2.2	10
93	Decreased antiviral immune response within the central nervous system of aged mice is associated with increased lethality of West Nile virus encephalitis. Aging Cell, 2021, 20, e13412.	6.7	10
94	Design, synthesis, and in vitro bioactivity evaluation of fluorine-containing analogues for sphingosine-1-phosphate 2 receptor. Bioorganic and Medicinal Chemistry, 2019, 27, 3619-3631.	3.0	9
95	Viruses have multiple paths to central nervous system pathology. Current Opinion in Neurology, 2018, 31, 313-317.	3.6	7
96	On Complement, Memory, and Microglia. New England Journal of Medicine, 2020, 382, 2056-2058.	27.0	7
97	Astrocytes: Initiators of and Responders to Inflammation. , 2020, , .		6
98	Molecular and Immunocytochemical Studies of Neurofibromas and Related Cell Types. Annals of the New York Academy of Sciences, 1986, 486, 96-106.	3.8	5
99	PET Study of Sphingosine-1-phosphate Receptor 1 Expression in Response to <i>S. aureus</i> Infection. Molecular Imaging, 2021, 2021, 9982020.	1.4	5
100	Radiosynthesis and evaluation of a fluorine-18 radiotracer [¹⁸F]FS1P1 for imaging sphingosine-1-phosphate receptor 1. Organic and Biomolecular Chemistry, 2022, 20, 1041-1052.	2.8	5
101	Encephalitic Arboviruses of Africa: Emergence, Clinical Presentation and Neuropathogenesis. Frontiers in Immunology, 2021, 12, 769942.	4.8	4
102	An In Vitro Brain Endothelial Model for Studies of Cryptococcal Transmigration into the Central Nervous System. Current Protocols in Microbiology, 2019, 53, e78.	6.5	3
103	Astrocyte interleukin-3 preps microglia. Trends in Immunology, 2021, 42, 937-939.	6.8	3
104	Dual Blades: The Role of Musashi 1 in Zika Replication and Microcephaly. Cell Host and Microbe, 2017, 22, 9-11.	11.0	2
105	Synthesis and characterization of [125I]TZ6544, a promising radioligand for investigating sphingosine-1-phosphate receptor 2. Nuclear Medicine and Biology, 2020, 88-89, 52-61.	0.6	2
106	A new era in neuroimmunology. Journal of Neuroimmunology, 2021, 351, 577478.	2.3	1
107	Erratum for Vanderheiden et al., â€œCCR2 Signaling Restricts SARS-CoV-2 Infectionâ€• MBio, 2022, , e0025922.	4.1	0