Harald Neumann

List of Publications by Year
in descending order

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102 papers	13,777 citations	26630 56 h-index	38395 95 g-index
104 all docs	104 docs citations	104 times ranked	16630 citing authors

#	Article	IF	Citations
1	Integrated Systems Approach Identifies Genetic Nodes and Networks in Late-Onset Alzheimerâ€™s Disease. Cell, 2013, 153, 707-720.	28.9	1,505
2	Clearance of apoptotic neurons without inflammation by microglial triggering receptor expressed on myeloid cells-2. Journal of Experimental Medicine, 2005, 201, 647-657.	8.5	946
3	Debris clearance by microglia: an essential link between degeneration and regeneration. Brain, 2008, 132, 288-295.	7.6	872
4	Neuronal â€˜Onâ€™ and â€˜Offâ€™ signals control microglia. Trends in Neurosciences, 2007, 30, 596-602.	8.6	690
5	Janus-faced microglia: beneficial and detrimental consequences of microglial phagocytosis. Frontiers in Cellular Neuroscience, 2013, 7, 6.	3.7	469
6	Induction of MHC class I genes in neurons. Science, 1995, 269, 549-552.	12.6	426
7	Cytotoxic T lymphocytes in autoimmune and degenerative CNS diseases. Trends in Neurosciences, 2002, 25, 313-319.	8.6	423
8	TREM2-Transduced Myeloid Precursors Mediate Nervous Tissue Debris Clearance and Facilitate Recovery in an Animal Model of Multiple Sclerosis. PLoS Medicine, 2007, 4, e124.	8.4	340
9	LPS receptor (CD14): a receptor for phagocytosis of Alzheimer's amyloid peptide. Brain, 2005, 128, 1778-1789.	7.6	322
10	Control of glial immune function by neurons. Glia, 2001, 36, 191-199.	4.9	286
11	Major Histocompatibility Complex (MHC) Class I Gene Expression in Single Neurons of the Central Nervous System: Differential Regulation by Interferon (IFN)-Î³ and Tumor Necrosis Factor (TNF)-Î±. Journal of Experimental Medicine, 1997, 185, 305-316.	8.5	284
12	Tumor Necrosis Factor Inhibits Neurite Outgrowth and Branching of Hippocampal Neurons by a Rho-Dependent Mechanism. Journal of Neuroscience, 2002, 22, 854-862.	3.6	282
13	Immune Surveillance in the Injured Nervous System: T-Lymphocytes Invade the Axotomized Mouse Facial Motor Nucleus and Aggregate around Sites of Neuronal Degeneration. Journal of Neuroscience, 1998, 18, 5804-5816.	3.6	271
14	Microglial clearance function in health and disease. Neuroscience, 2009, 158, 1030-1038.	2.3	267
15	Transection of Major Histocompatibility Complex Class I-Induced Neurites by Cytotoxic T Lymphocytes. American Journal of Pathology, 2001, 159, 809-815.	3.8	255
16	Neurotrophins inhibit major histocompatibility class II inducibility of microglia: Involvement of the p75 neurotrophin receptor. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 5779-5784.	7.1	253
17	Sequential Proteolytic Processing of the Triggering Receptor Expressed on Myeloid Cells-2 (TREM2) Protein by Ectodomain Shedding and Î³-Secretase-dependent Intramembranous Cleavage. Journal of Biological Chemistry, 2013, 288, 33027-33036.	3.4	236
18	Essential role of the microglial triggering receptor expressed on myeloid cells-2 (TREM2) for central nervous tissue immune homeostasis. Journal of Neuroimmunology, 2007, 184, 92-99.	2.3	222

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19	Neurodegeneration by Activation of the Microglial Complement-Phagosome Pathway. Journal of Neuroscience, 2014, 34, 8546-8556.	3.6	192
20	Functional role of brain-derived neurotrophic factor in neuroprotective autoimmunity: therapeutic implications in a model of multiple sclerosis. Brain, 2010, 133, 2248-2263.	7.6	180
21	Translocator protein (18ÂkDa) (TSPO) is expressed in reactive retinal microglia and modulates microglial inflammation and phagocytosis. Journal of Neuroinflammation, 2014, 11, 3.	7.2	177
22	Alleviation of Neurotoxicity by Microglial Human Siglec-11. Journal of Neuroscience, 2010, 30, 3482-3488.	3.6	158
23	Anti-inflammatory activity of nerve growth factor in experimental autoimmune encephalomyelitis: inhibition of monocyte transendothelial migration. European Journal of Immunology, 2001, 31, 11-22.	2.9	151
24	Bystander Killing of Malignant Glioma by Bone Marrowâ€“derived Tumor-Infiltrating Progenitor Cells Expressing a Suicide Gene. Molecular Therapy, 2007, 15, 1373-1381.	8.2	149
25	MHC class I-restricted killing of neurons by virus-specific CD8+ T lymphocytes is effected through the Fas/FasL, but not the perforin pathway. European Journal of Immunology, 2000, 30, 3623-3633.	2.9	148
26	Neuronal injury mediated via stimulation of microglial tollâ€like receptorâ€9 (TLR9). FASEB Journal, 2004, 18, 1-17.	0.5	148
27	Hematopoietic Stem Cells Reduce Postischemic Inflammation and Ameliorate Ischemic Brain Injury. Stroke, 2008, 39, 2867-2875.	2.0	145
28	Protective effects of microglia in multiple sclerosis. Experimental Neurology, 2010, 225, 24-28.	4.1	137
29	NEUROSCIENCE: Microglia: The Enemy Within?. Science, 2003, 302, 1689-1690.	12.6	133
30	Interferon Î³ Gene Expression in Sensory Neurons: Evidence for Autocrine Gene Regulation. Journal of Experimental Medicine, 1997, 186, 2023-2031.	8.5	131
31	Accumulation of tau induced in neurites by microglial proinflammatory mediators. FASEB Journal, 2009, 23, 2502-2513.	0.5	127
32	Role of microglia in neuronal degeneration and regeneration. Seminars in Immunopathology, 2009, 31, 513-525.	6.1	126
33	Variant TREM2 as Risk Factor for Alzheimer's Disease. New England Journal of Medicine, 2013, 368, 182-184.	27.0	122
34	Dual Induction of TREM2 and Tolerance-Related Transcript, Tmem176b, in Amyloid Transgenic Mice: Implications for Vaccine-Based Therapies for Alzheimer's Disease. ASN Neuro, 2010, 2, AN20100010.	2.7	118
35	Human Induced Pluripotent Stem Cell-Derived Microglia-Like Cells Harboring TREM2 Missense Mutations Show Specific Deficits in Phagocytosis. Cell Reports, 2018, 24, 2300-2311.	6.4	118
36	CXCL10 Triggers Early Microglial Activation in the Cuprizone Model. Journal of Immunology, 2015, 194, 3400-3413.	0.8	115

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37	Suppression of Microglial Inflammatory Activity by Myelin Phagocytosis: Role of p47-PHOX-Mediated Generation of Reactive Oxygen Species. Journal of Neuroscience, 2006, 26, 12904-12913.	3.6	114
38	Neuronal Control of the Immune Response in the Central Nervous System. Journal of Neuropathology and Experimental Neurology, 1998, 57, 1-13.	1.7	113
39	Sialic Acid on the Neuronal Glycocalyx Prevents Complement C1 Binding and Complement Receptor-3-Mediated Removal by Microglia. Journal of Neuroscience, 2012, 32, 946-952.	3.6	112
40	Attenuated Inflammatory Response in Triggering Receptor Expressed on Myeloid Cells 2 (TREM2) Knock-Out Mice following Stroke. PLoS ONE, 2013, 8, e52982.	2.5	112
41	Unique transcriptome signature of mouse microglia. Glia, 2013, 61, 1429-1442.	4.9	105
42	Neuronal FasL Induces Cell Death of Encephalitogenic T Lymphocytes. Brain Pathology, 2000, 10, 353-364.	4.1	104
43	Microglial activatory (immunoreceptor tyrosineâ€based activation motif)â€•and inhibitory (immunoreceptor tyrosineâ€based inhibition motif)â€signaling receptors for recognition of the neuronal glycocalyx. Glia, 2013, 61, 37-46.	4.9	97
44	Microglial CD33-Related Siglec-E Inhibits Neurotoxicity by Preventing the Phagocytosis-Associated Oxidative Burst. Journal of Neuroscience, 2013, 33, 18270-18276.	3.6	87
45	TREM2 triggers microglial density and ageâ€related neuronal loss. Glia, 2019, 67, 539-550.	4.9	84
46	Age-related macular degeneration associated polymorphism rs10490924 in ARMS2 results in deficiency of a complement activator. Journal of Neuroinflammation, 2017, 14, 4.	7.2	80
47	Generation of microglial cells from mouse embryonic stem cells. Nature Protocols, 2010, 5, 1481-1494.	12.0	79
48	Molecular mechanisms of axonal damage in inflammatory central nervous system diseases. Current Opinion in Neurology, 2003, 16, 267-273.	3.6	78
49	Targeting the Cytosolic Innate Immune Receptors RIG-I and MDA5 Effectively Counteracts Cancer Cell Heterogeneity in Glioblastoma. Stem Cells, 2013, 31, 1064-1074.	3.2	76
50	Breakdown of Axonal Synaptic Vesicle Precursor Transport by Microglial Nitric Oxide. Journal of Neuroscience, 2005, 25, 352-362.	3.6	71
51	Siglecâ€h on activated microglia for recognition and engulfment of glioma cells. Glia, 2013, 61, 1122-1133.	4.9	69
52	Fas Ligand (CD95L) Protects Neurons Against Perforin- Mediated T Lymphocyte Cytotoxicity. Journal of Immunology, 2001, 167, 674-681.	0.8	67
53	Neurotrophins. Advances in Experimental Medicine and Biology, 2003, 513, 303-334.	1.6	66
54	Signal Regulatory Protein-Î²1. American Journal of Pathology, 2009, 175, 2528-2539.	3.8	66

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55	Selective Transduction of Malignant Glioma by Lentiviral Vectors Pseudotyped with Lymphocytic Choriomeningitis Virus Glycoproteins. Human Gene Therapy, 2004, 15, 1091-1100.	2.7	65
56	Anti-inflammatory activity of low molecular weight polysialic acid on human macrophages. Scientific Reports, 2015, 5, 16800.	3.3	64
57	Polysialylation and lipopolysaccharideâ€induced shedding of Eâ€selectin ligandâ€1 and neuropilinâ€2 by microglia and THPâ€1 macrophages. Glia, 2016, 64, 1314-1330.	4.9	63
58	Polysialic acid blocks mononuclear phagocyte reactivity, inhibits complement activation, and protects from vascular damage in the retina. EMBO Molecular Medicine, 2017, 9, 154-166.	6.9	63
59	Microglial Immunoreceptor Tyrosine-Based Activation and Inhibition Motif Signaling in Neuroinflammation. International Journal of Alzheimer's Disease, 2010, 2010, 1-7.	2.0	61
60	Deletion of Alzheimer's diseaseâ€associated <scp>CD33</scp> results in an inflammatory human microglia phenotype. Glia, 2021, 69, 1393-1412.	4.9	59
61	Unloading kinesin transported cargoes from the tubulin track via the inflammatory câ€Jun Nâ€terminal kinase pathway. FASEB Journal, 2006, 20, 2573-2575.	0.5	56
62	Siglec functions of microglia. Glycobiology, 2014, 24, 794-799.	2.5	55
63	Licensing of myeloid cells promotes central nervous system autoimmunity and is controlled by peroxisome proliferator-activated receptor Î³. Brain, 2012, 135, 1586-1605.	7.6	51
64	Molecular mechanisms of axonal damage in inflammatory central nervous system diseases. Current Opinion in Neurology, 2003, 16, 267-273.	3.6	48
65	Activated microglia/macrophage whey acidic protein (AMWAP) inhibits NFÎºB signaling and induces a neuroprotective phenotype in microglia. Journal of Neuroinflammation, 2015, 12, 77.	7.2	47
66	Loss of the smallest subunit of cytochrome c oxidase, COX8A, causes Leigh-like syndrome and epilepsy. Brain, 2016, 139, 338-345.	7.6	44
67	Microglial precursors derived from mouse embryonic stem cells. Glia, 2009, 57, 1660-1671.	4.9	43
68	Sensing the neuronal glycocalyx by glial sialic acid binding immunoglobulin-like lectins. Neuroscience, 2014, 275, 113-124.	2.3	43
69	Wild-type Cu/Zn superoxide dismutase (SOD1) does not facilitate, but impedes the formation of protein aggregates of amyotrophic lateral sclerosis causing mutant SOD1. Neurobiology of Disease, 2009, 36, 331-342.	4.4	40
70	CCL17 exerts a neuroimmune modulatory function and is expressed in hippocampal neurons. Glia, 2018, 66, 2246-2261.	4.9	33
71	Microglia: a cellular vehicle for CNS gene therapy. Journal of Clinical Investigation, 2006, 116, 2857-2860.	8.2	33
72	Brain microglia: watchdogs with pedigree. Nature Neuroscience, 2013, 16, 253-255.	14.8	31

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73	Sialylation acts as a checkpoint for innate immune responses in the central nervous system. Glia, 2021, 69, 1619-1636.	4.9	31
74	Brain endothelial PPARÎ³ controls inflammation-induced CD4+ T cell adhesion and transmigration in vitro. Journal of Neuroimmunology, 2007, 190, 34-43.	2.3	29
75	Microglial carbohydrate-binding receptors for neural repair. Cell and Tissue Research, 2012, 349, 215-227.	2.9	29
76	Immune-Mediated CNS Damage. Results and Problems in Cell Differentiation, 2009, 51, 173-196.	0.7	27
77	Sialylation of neurites inhibits complementâ€mediated macrophage removal in a human macrophageâ€neuron Coâ€Culture System. Glia, 2016, 64, 35-47.	4.9	26
78	Reduced sialylation triggers homeostatic synapse and neuronal loss in middle-aged mice. Neurobiology of Aging, 2020, 88, 91-107.	3.1	24
79	Characterization of inflammatory markers and transcriptome profiles of differentially activated embryonic stem cellâ€derived microglia. Glia, 2016, 64, 1007-1020.	4.9	22
80	Engineered stem cell-derived microglia as therapeutic vehicle for experimental autoimmune encephalomyelitis. Gene Therapy, 2013, 20, 797-806.	4.5	19
81	The immunological microenvironment in the CNS: implications on neuronal cell death and survival. , 2000, 59, 59-68.		19
82	Control of Innate Immunity by Sialic Acids in the Nervous Tissue. International Journal of Molecular Sciences, 2020, 21, 5494.	4.1	18
83	Phagocytosisâ€related <scp>NADPH</scp> oxidase 2 subunit gp91phox contributes to neurodegeneration after repeated systemic challenge with lipopolysaccharides. Glia, 2021, 69, 137-150.	4.9	17
84	Single-use membrane adsorbers for endotoxin removal and purification of endogenous polysialic acid from Escherichia coli K1. Biotechnology Reports (Amsterdam, Netherlands), 2018, 17, 110-116.	4.4	15
85	Targeting sialylation to treat central nervous system diseases. Trends in Pharmacological Sciences, 2021, 42, 998-1008.	8.7	15
86	Intramembranous processing by Î³â€secretase regulates reverse signaling of ephrinâ€B2 in migration of microglia. Glia, 2017, 65, 1103-1118.	4.9	13
87	Low molecular weight polysialic acid prevents lipopolysaccharideâ€induced inflammatory dopaminergic neurodegeneration in humanized <scp>SIGLEC11</scp> transgenic mice. Glia, 2021, 69, 2845-2862.	4.9	12
88	Polysialic acid production using Escherichia coli K1 in a disposable bag reactor. Engineering in Life Sciences, 2017, 17, 723-731.	3.6	11
89	Charged aerosol detector HPLC as a characterization and quantification application of biopharmaceutically relevant polysialic acid from E. coli K1. Journal of Chromatography A, 2019, 1599, 85-94.	3.7	10
90	Reporter cell assay for human CD33 validated by specific antibodies and human iPSC-derived microglia. Scientific Reports, 2021, 11, 13462.	3.3	8

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91	A retroviral packaging cell line for pseudotype vectors based on glioma-infiltrating progenitor cells. Journal of Gene Medicine, 2007, 9, 335-344.	2.8	7
92	Low molecular weight polysialic acid binds to properdin and reduces the activity of the alternative complement pathway. Scientific Reports, 2022, 12, 5818.	3.3	7
93	A reporter cell system for the triggering receptor expressed on myeloid cells 2 reveals differential effects of diseaseâ€associated variants on receptor signaling and activation by antibodies against the stalk region. Glia, 2021, 69, 1126-1139.	4.9	5
94	Uridine diphosphate-N-acetylglucosamine-2-epimerase/N-acetylmannosamine kinase deletion in mice leads to lethal intracerebral hemorrhage during embryonic development. Glycobiology, 2021, 31, 1478-1489.	2.5	5
95	Spatially pathogenic forms of tau detected in Alzheimer's disease brain tissue by fluorescence lifetime-based FÃ¶rster resonance energy transfer. Journal of Neuroscience Methods, 2010, 192, 127-137.	2.5	2
96	O2â€05â€03: Familial Alzheimer's disease PSEN2 mutations regulate inflammatory micrornas in microglia. Alzheimer's and Dementia, 2015, 11, P184.	0.8	2
97	GewebeschÃdigung des zentralen Nervensystems durch zytotoxische CDS+ TÂ·Lymphozyten. E-Neuroforum, 2002, 8, 254-260.	0.1	0
98	59. Targeted Gene Therapy of Malignant Glioma with Adult Stem Cells. Molecular Therapy, 2006, 13, S25.	8.2	0
99	S2-02-02: PHAGOCYTOSIS PATHWAY OF MICROGLIA LINKED TO NEURODEGENERATION. , 2014, 10, P157-P157.		0
100	Selective Transduction of Malignant Glioma by Lentiviral Vectors Pseudotyped with Lymphocytic Choriomeningitis Virus Glycoproteins. Human Gene Therapy, 2004, .	2.7	0
101	Immunoregulatory Neuroprotection of Cerebral Ischaemia by Haematopoietic Stem and Precursor Cells. European Neurological Review, 2009, 4, 42.	0.5	0
102	Patch-clamp electro-physiology combined with single-cell RT-PCR. , 1996, , 1677-1685.		0