

Harald Neumann

List of Publications by Year in descending order

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102
papers

13,777
citations

26567

56
h-index

38300

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 Alzheimer's Disease. <i>Cell</i> , 2013, 153, 707-720.	13.5	1,505
2	Clearance of apoptotic neurons without inflammation by microglial triggering receptor expressed on myeloid cells-2. <i>Journal of Experimental Medicine</i> , 2005, 201, 647-657.	4.2	946
3	Debris clearance by microglia: an essential link between degeneration and regeneration. <i>Brain</i> , 2008, 132, 288-295.	3.7	872
4	Neuronal "On" and "Off" signals control microglia. <i>Trends in Neurosciences</i> , 2007, 30, 596-602.	4.2	690
5	Janus-faced microglia: beneficial and detrimental consequences of microglial phagocytosis. <i>Frontiers in Cellular Neuroscience</i> , 2013, 7, 6.	1.8	469
6	Induction of MHC class I genes in neurons. <i>Science</i> , 1995, 269, 549-552.	6.0	426
7	Cytotoxic T lymphocytes in autoimmune and degenerative CNS diseases. <i>Trends in Neurosciences</i> , 2002, 25, 313-319.	4.2	423
8	TREM2-Transduced Myeloid Precursors Mediate Nervous Tissue Debris Clearance and Facilitate Recovery in an Animal Model of Multiple Sclerosis. <i>PLoS Medicine</i> , 2007, 4, e124.	3.9	340
9	LPS receptor (CD14): a receptor for phagocytosis of Alzheimer's amyloid peptide. <i>Brain</i> , 2005, 128, 1778-1789.	3.7	322
10	Control of glial immune function by neurons. <i>Glia</i> , 2001, 36, 191-199.	2.5	286
11	Major Histocompatibility Complex (MHC) Class I Gene Expression in Single Neurons of the Central Nervous System: Differential Regulation by Interferon (IFN)- β and Tumor Necrosis Factor (TNF)- α . <i>Journal of Experimental Medicine</i> , 1997, 185, 305-316.	4.2	284
12	Tumor Necrosis Factor Inhibits Neurite Outgrowth and Branching of Hippocampal Neurons by a Rho-Dependent Mechanism. <i>Journal of Neuroscience</i> , 2002, 22, 854-862.	1.7	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. <i>Journal of Neuroscience</i> , 1998, 18, 5804-5816.	1.7	271
14	Microglial clearance function in health and disease. <i>Neuroscience</i> , 2009, 158, 1030-1038.	1.1	267
15	Transection of Major Histocompatibility Complex Class I-Induced Neurites by Cytotoxic T Lymphocytes. <i>American Journal of Pathology</i> , 2001, 159, 809-815.	1.9	255
16	Neurotrophins inhibit major histocompatibility class II inducibility of microglia: Involvement of the p75 neurotrophin receptor. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1998, 95, 5779-5784.	3.3	253
17	Sequential Proteolytic Processing of the Triggering Receptor Expressed on Myeloid Cells-2 (TREM2) Protein by Ectodomain Shedding and β -Secretase-dependent Intramembranous Cleavage. <i>Journal of Biological Chemistry</i> , 2013, 288, 33027-33036.	1.6	236
18	Essential role of the microglial triggering receptor expressed on myeloid cells-2 (TREM2) for central nervous tissue immune homeostasis. <i>Journal of Neuroimmunology</i> , 2007, 184, 92-99.	1.1	222

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19	Neurodegeneration by Activation of the Microglial Complement-Phagosome Pathway. <i>Journal of Neuroscience</i> , 2014, 34, 8546-8556.	1.7	192
20	Functional role of brain-derived neurotrophic factor in neuroprotective autoimmunity: therapeutic implications in a model of multiple sclerosis. <i>Brain</i> , 2010, 133, 2248-2263.	3.7	180
21	Translocator protein (18 kDa) (TSPO) is expressed in reactive retinal microglia and modulates microglial inflammation and phagocytosis. <i>Journal of Neuroinflammation</i> , 2014, 11, 3.	3.1	177
22	Alleviation of Neurotoxicity by Microglial Human Siglec-11. <i>Journal of Neuroscience</i> , 2010, 30, 3482-3488.	1.7	158
23	Anti-inflammatory activity of nerve growth factor in experimental autoimmune encephalomyelitis: inhibition of monocyte transendothelial migration. <i>European Journal of Immunology</i> , 2001, 31, 11-22.	1.6	151
24	Bystander Killing of Malignant Glioma by Bone Marrow-derived Tumor-Infiltrating Progenitor Cells Expressing a Suicide Gene. <i>Molecular Therapy</i> , 2007, 15, 1373-1381.	3.7	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. <i>European Journal of Immunology</i> , 2000, 30, 3623-3633.	1.6	148
26	Neuronal injury mediated via stimulation of microglial toll-like receptor (TLR9). <i>FASEB Journal</i> , 2004, 18, 1-17.	0.2	148
27	Hematopoietic Stem Cells Reduce Postischemic Inflammation and Ameliorate Ischemic Brain Injury. <i>Stroke</i> , 2008, 39, 2867-2875.	1.0	145
28	Protective effects of microglia in multiple sclerosis. <i>Experimental Neurology</i> , 2010, 225, 24-28.	2.0	137
29	NEUROSCIENCE: Microglia: The Enemy Within?. <i>Science</i> , 2003, 302, 1689-1690.	6.0	133
30	Interferon β Gene Expression in Sensory Neurons: Evidence for Autocrine Gene Regulation. <i>Journal of Experimental Medicine</i> , 1997, 186, 2023-2031.	4.2	131
31	Accumulation of tau induced in neurites by microglial proinflammatory mediators. <i>FASEB Journal</i> , 2009, 23, 2502-2513.	0.2	127
32	Role of microglia in neuronal degeneration and regeneration. <i>Seminars in Immunopathology</i> , 2009, 31, 513-525.	2.8	126
33	Variant <i>TREM2</i> as Risk Factor for Alzheimer's Disease. <i>New England Journal of Medicine</i> , 2013, 368, 182-184.	13.9	122
34	Dual Induction of <i>TREM2</i> and Tolerance-Related Transcript, <i>Tmem176b</i> , in Amyloid Transgenic Mice: Implications for Vaccine-Based Therapies for Alzheimer's Disease. <i>ASN Neuro</i> , 2010, 2, AN20100010.	1.5	118
35	Human Induced Pluripotent Stem Cell-Derived Microglia-Like Cells Harboring <i>TREM2</i> Missense Mutations Show Specific Deficits in Phagocytosis. <i>Cell Reports</i> , 2018, 24, 2300-2311.	2.9	118
36	CXCL10 Triggers Early Microglial Activation in the Cuprizone Model. <i>Journal of Immunology</i> , 2015, 194, 3400-3413.	0.4	115

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37	Suppression of Microglial Inflammatory Activity by Myelin Phagocytosis: Role of p47-PHOX-Mediated Generation of Reactive Oxygen Species. <i>Journal of Neuroscience</i> , 2006, 26, 12904-12913.	1.7	114
38	Neuronal Control of the Immune Response in the Central Nervous System. <i>Journal of Neuropathology and Experimental Neurology</i> , 1998, 57, 1-13.	0.9	113
39	Sialic Acid on the Neuronal Glycocalyx Prevents Complement C1 Binding and Complement Receptor-3-Mediated Removal by Microglia. <i>Journal of Neuroscience</i> , 2012, 32, 946-952.	1.7	112
40	Attenuated Inflammatory Response in Triggering Receptor Expressed on Myeloid Cells 2 (TREM2) Knock-Out Mice following Stroke. <i>PLoS ONE</i> , 2013, 8, e52982.	1.1	112
41	Unique transcriptome signature of mouse microglia. <i>Glia</i> , 2013, 61, 1429-1442.	2.5	105
42	Neuronal FasL Induces Cell Death of Encephalitogenic T Lymphocytes. <i>Brain Pathology</i> , 2000, 10, 353-364.	2.1	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. <i>Glia</i> , 2013, 61, 37-46.	2.5	97
44	Microglial CD33-Related Siglec-E Inhibits Neurotoxicity by Preventing the Phagocytosis-Associated Oxidative Burst. <i>Journal of Neuroscience</i> , 2013, 33, 18270-18276.	1.7	87
45	TREM2 triggers microglial density and ageâ€related neuronal loss. <i>Glia</i> , 2019, 67, 539-550.	2.5	84
46	Age-related macular degeneration associated polymorphism rs10490924 in ARMS2 results in deficiency of a complement activator. <i>Journal of Neuroinflammation</i> , 2017, 14, 4.	3.1	80
47	Generation of microglial cells from mouse embryonic stem cells. <i>Nature Protocols</i> , 2010, 5, 1481-1494.	5.5	79
48	Molecular mechanisms of axonal damage in inflammatory central nervous system diseases. <i>Current Opinion in Neurology</i> , 2003, 16, 267-273.	1.8	78
49	Targeting the Cytosolic Innate Immune Receptors RIG-I and MDA5 Effectively Counteracts Cancer Cell Heterogeneity in Glioblastoma. <i>Stem Cells</i> , 2013, 31, 1064-1074.	1.4	76
50	Breakdown of Axonal Synaptic Vesicle Precursor Transport by Microglial Nitric Oxide. <i>Journal of Neuroscience</i> , 2005, 25, 352-362.	1.7	71
51	Siglecâ€h on activated microglia for recognition and engulfment of glioma cells. <i>Glia</i> , 2013, 61, 1122-1133.	2.5	69
52	Fas Ligand (CD95L) Protects Neurons Against Perforin- Mediated T Lymphocyte Cytotoxicity. <i>Journal of Immunology</i> , 2001, 167, 674-681.	0.4	67
53	Neurotrophins. <i>Advances in Experimental Medicine and Biology</i> , 2003, 513, 303-334.	0.8	66
54	Signal Regulatory Protein-1. <i>American Journal of Pathology</i> , 2009, 175, 2528-2539.	1.9	66

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55	Selective Transduction of Malignant Glioma by Lentiviral Vectors Pseudotyped with Lymphocytic Choriomeningitis Virus Glycoproteins. <i>Human Gene Therapy</i> , 2004, 15, 1091-1100.	1.4	65
56	Anti-inflammatory activity of low molecular weight polysialic acid on human macrophages. <i>Scientific Reports</i> , 2015, 5, 16800.	1.6	64
57	Polysialylation and lipopolysaccharide-induced shedding of E-selectin ligand 1 and neuropilin 2 by microglia and THP-1 macrophages. <i>Glia</i> , 2016, 64, 1314-1330.	2.5	63
58	Polysialic acid blocks mononuclear phagocyte reactivity, inhibits complement activation, and protects from vascular damage in the retina. <i>EMBO Molecular Medicine</i> , 2017, 9, 154-166.	3.3	63
59	Microglial Immunoreceptor Tyrosine-Based Activation and Inhibition Motif Signaling in Neuroinflammation. <i>International Journal of Alzheimer's Disease</i> , 2010, 2010, 1-7.	1.1	61
60	Deletion of Alzheimer's disease-associated <i>CD33</i> results in an inflammatory human microglia phenotype. <i>Glia</i> , 2021, 69, 1393-1412.	2.5	59
61	Unloading kinesin transported cargoes from the tubulin track via the inflammatory <i>c-Jun N-terminal kinase</i> pathway. <i>FASEB Journal</i> , 2006, 20, 2573-2575.	0.2	56
62	Siglec functions of microglia. <i>Glycobiology</i> , 2014, 24, 794-799.	1.3	55
63	Licensing of myeloid cells promotes central nervous system autoimmunity and is controlled by peroxisome proliferator-activated receptor β . <i>Brain</i> , 2012, 135, 1586-1605.	3.7	51
64	Molecular mechanisms of axonal damage in inflammatory central nervous system diseases. <i>Current Opinion in Neurology</i> , 2003, 16, 267-273.	1.8	48
65	Activated microglia/macrophage whey acidic protein (AMWAP) inhibits $\text{NF-}\kappa\text{B}$ signaling and induces a neuroprotective phenotype in microglia. <i>Journal of Neuroinflammation</i> , 2015, 12, 77.	3.1	47
66	Loss of the smallest subunit of cytochrome c oxidase, COX8A, causes Leigh-like syndrome and epilepsy. <i>Brain</i> , 2016, 139, 338-345.	3.7	44
67	Microglial precursors derived from mouse embryonic stem cells. <i>Glia</i> , 2009, 57, 1660-1671.	2.5	43
68	Sensing the neuronal glycocalyx by glial sialic acid binding immunoglobulin-like lectins. <i>Neuroscience</i> , 2014, 275, 113-124.	1.1	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. <i>Neurobiology of Disease</i> , 2009, 36, 331-342.	2.1	40
70	CCL17 exerts a neuroimmune modulatory function and is expressed in hippocampal neurons. <i>Glia</i> , 2018, 66, 2246-2261.	2.5	33
71	Microglia: a cellular vehicle for CNS gene therapy. <i>Journal of Clinical Investigation</i> , 2006, 116, 2857-2860.	3.9	33
72	Brain microglia: watchdogs with pedigree. <i>Nature Neuroscience</i> , 2013, 16, 253-255.	7.1	31

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73	Sialylation acts as a checkpoint for innate immune responses in the central nervous system. <i>Glia</i> , 2021, 69, 1619-1636.	2.5	31
74	Brain endothelial PPAR γ controls inflammation-induced CD4 ⁺ T cell adhesion and transmigration in vitro. <i>Journal of Neuroimmunology</i> , 2007, 190, 34-43.	1.1	29
75	Microglial carbohydrate-binding receptors for neural repair. <i>Cell and Tissue Research</i> , 2012, 349, 215-227.	1.5	29
76	Immune-Mediated CNS Damage. <i>Results and Problems in Cell Differentiation</i> , 2009, 51, 173-196.	0.2	27
77	Sialylation of neurites inhibits complement-mediated macrophage removal in a human macrophage-neuron Co-culture System. <i>Glia</i> , 2016, 64, 35-47.	2.5	26
78	Reduced sialylation triggers homeostatic synapse and neuronal loss in middle-aged mice. <i>Neurobiology of Aging</i> , 2020, 88, 91-107.	1.5	24
79	Characterization of inflammatory markers and transcriptome profiles of differentially activated embryonic stem cell-derived microglia. <i>Glia</i> , 2016, 64, 1007-1020.	2.5	22
80	Engineered stem cell-derived microglia as therapeutic vehicle for experimental autoimmune encephalomyelitis. <i>Gene Therapy</i> , 2013, 20, 797-806.	2.3	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. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5494.	1.8	18
83	Phagocytosis-related NADPH oxidase 2 subunit gp91phox contributes to neurodegeneration after repeated systemic challenge with lipopolysaccharides. <i>Glia</i> , 2021, 69, 137-150.	2.5	17
84	Single-use membrane adsorbers for endotoxin removal and purification of endogenous polysialic acid from <i>Escherichia coli</i> K1. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2018, 17, 110-116.	2.1	15
85	Targeting sialylation to treat central nervous system diseases. <i>Trends in Pharmacological Sciences</i> , 2021, 42, 998-1008.	4.0	15
86	Intramembranous processing by β -secretase regulates reverse signaling of ephrin β 2 in migration of microglia. <i>Glia</i> , 2017, 65, 1103-1118.	2.5	13
87	Low molecular weight polysialic acid prevents lipopolysaccharide-induced inflammatory dopaminergic neurodegeneration in humanized SIGLEC11 transgenic mice. <i>Glia</i> , 2021, 69, 2845-2862.	2.5	12
88	Polysialic acid production using <i>Escherichia coli</i> K1 in a disposable bag reactor. <i>Engineering in Life Sciences</i> , 2017, 17, 723-731.	2.0	11
89	Charged aerosol detector HPLC as a characterization and quantification application of biopharmaceutically relevant polysialic acid from <i>E. coli</i> K1. <i>Journal of Chromatography A</i> , 2019, 1599, 85-94.	1.8	10
90	Reporter cell assay for human CD33 validated by specific antibodies and human iPSC-derived microglia. <i>Scientific Reports</i> , 2021, 11, 13462.	1.6	8

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91	A retroviral packaging cell line for pseudotype vectors based on glioma-infiltrating progenitor cells. <i>Journal of Gene Medicine</i> , 2007, 9, 335-344.	1.4	7
92	Low molecular weight polysialic acid binds to properdin and reduces the activity of the alternative complement pathway. <i>Scientific Reports</i> , 2022, 12, 5818.	1.6	7
93	A reporter cell system for the triggering receptor expressed on myeloid cells 2 reveals differential effects of disease-associated variants on receptor signaling and activation by antibodies against the stalk region. <i>Glia</i> , 2021, 69, 1126-1139.	2.5	5
94	<i>Uridine diphosphate-N-acetylglucosamine-2-epimerase/N-acetylmannosamine kinase</i> deletion in mice leads to lethal intracerebral hemorrhage during embryonic development. <i>Glycobiology</i> , 2021, 31, 1478-1489.	1.3	5
95	Spatially pathogenic forms of tau detected in Alzheimer's disease brain tissue by fluorescence lifetime-based Förster resonance energy transfer. <i>Journal of Neuroscience Methods</i> , 2010, 192, 127-137.	1.3	2
96	02â€05â€03: Familial Alzheimer's disease PSEN2 mutations regulate inflammatory micromas in microglia. <i>Alzheimer's and Dementia</i> , 2015, 11, P184.	0.4	2
97	Gewebeschädigung des zentralen Nervensystems durch zytotoxische CDS+ TÂ-Lymphozyten. <i>E-Neuroforum</i> , 2002, 8, 254-260.	0.2	0
98	59. Targeted Gene Therapy of Malignant Glioma with Adult Stem Cells. <i>Molecular Therapy</i> , 2006, 13, S25.	3.7	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. <i>Human Gene Therapy</i> , 2004, .	1.4	0
101	Immunoregulatory Neuroprotection of Cerebral Ischaemia by Haematopoietic Stem and Precursor Cells. <i>European Neurological Review</i> , 2009, 4, 42.	0.5	0
102	Patch-clamp electro-physiology combined with single-cell RT-PCR. , 1996, , 1677-1685.		0