Prof. Harald Neumann, MD

Institute of Reconstructive Neurobiology

Rheinische Friedrich-Wilhelms-Universität Bonn

Institute of Reconstructive Neurobiology

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Research Expertise

Neuroinflammation, mechanisms of inflammatory neurodegeneration, microglia-neuron interaction, Siglecs

Education / Training

Technical University Munich, Germany, Habilitation in Neuroimmunology, 1998

University (FernUniversität) of Hagen, Germany, Business Administration, 1994

University of Würzburg and University of Munich (LMU), Germany, Medicine, MD Thesis, 1991

Appointments / Positions Held

2004 - present
Head of the Neural Regeneration Group, University of Bonn, Germany

2001 - 2004
Head of the Neuroimmunology Group European Neuroscience Institute Göttingen, University Göttingen

1995 - 2001
Group leader, Department of Neuroimmunology, Max-Planck-Institute of Neurobiology, Martinsried

1992 - 1994
Research fellow, Department of Neuroimmunology Max-Planck-Institute of Psychiatry, Martinsried

1990 - 1992
Medical Internship, Department of Neurology, University Ulm, Germany

Honors / Awards

2009 - present
Contribution to several patents (EP2424976B1; EP2424977B1; EP2783691A1)

2005 - 2010
Vice-coordinator of the EU Integrated Project NeuroproMiSe

2002 - 2009
Managing Board member of the Institute of MS Research

2003 - 2008
Editorial Board member of ‚Stem Cells'

2007
DANA-Foundation-Award, Neuroimmunology-Program

1996
PCR-Award Boehringer Mannheim

1992
Research scholarship (German science foundation)

10 Most Relevant Publications for Prof. Harald Neumann

1. Bodea LG, Wang Y, Linnartz-Gerlach B, Kopatz J, Sinkkonen L, Musgrove R, Kaoma T, Muller A, Vallar L, Di Monte DA, Balling R and **Neumann H.** (2014). Neurodegeneration by activation of the microglial complement-phagosome pathway. J Neurosci. 2014 Jun 18;34(25):8546-56.

2. **Neumann H.** and Daly MJ. (2013). Variant TREM2 as risk factor for Alzheimer's disease. N Engl J Med. 2013 Jan 10;368(2):182-4.

3. Claude J, Linnartz-Gerlach B, Kudin AP, Kunz WS and **Neumann H.** (2013). Microglial CD33-related Siglec-E inhibits neurotoxicity by preventing the phagocytosis associated oxidative burst. J. Neurosci. 33(46):18270-6.

4. Zhang B*, Gaiteri C*, Bodea LG*, Wang Z, McElwee J, Podtelezhnikov AA, Zhang C, Xie T, Tran L, Dobrin R, Fluder E, Clurman B, Melquist S, Narayanan M, Suver C, Shah H, Mahajan M, Gillis T, Mysore J, MacDonald ME, Lamb JR, Bennett DA, Molony C, Stone DJ, Gudnason V, Myers AJ, Schadt EE, **Neumann H**, Zhu J, Emilsson V. (2013). Integrated systems approach identifies genetic nodes and networks in late-onset Alzheimer's disease. Cell. 2013 Apr 25;153(3):707-20.

5. Wang Y, **Neumann H.** 2010. Alleviation of neurotoxicity by microglial human Siglec-11. J Neurosci 30: 3482-8

6. Beutner C, Roy K, Linnartz B, Nappoli I, **Neumann H.** 2010. Generation of microglial cells from mouse embryonic stem cells. Nature Protocols: 5:1481-94

7. Takahashi K, Prinz M, Stagi M, Chechneva O, **Neumann H.** 2007. TREM2-transduced myeloid precursors mediate nervous tissue debris clearance and facilitate recovery in an animal model of multiple sclerosis. PLoS Med 4: e124

8. Stagi M, Gorlovoy P, Larionov S, Takahashi K, **Neumann H.** 2006. Unloading kinesin transported cargoes from the tubulin track via the inflammatory c-Jun N-terminal kinase pathway. FASEB J 20: 2573-5

9. Takahashi K, Rochford CD, **Neumann H.** 2005. Clearance of apoptotic neurons without inflammation by microglial triggering receptor expressed on myeloid cells-2. J Exp Med 201: 647-57

10. Stagi M, Dittrich PS, Frank N, Iliev AI, Schwille P, **Neumann H.** 2005. Breakdown of axonal synaptic vesicle precursor transport by microglial nitric oxide. J Neurosci 25: 352-62