

Seija Lehnardt

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Curriculum vitae

2015	W2 Professorship "Neurodegeneration", Institute of Cell Biology and Neurobiology and Department of Neurology, Charité – Universitätsmedizin Berlin
2013	Board certification in Neurology
since 2010	Resident and specialist in Neurology, Department of Neurology, Charité – Universitätsmedizin Berlin
2009 - 2015	W1 Professorship "Molecular Medicine", Charité – Universitätsmedizin Berlin
2008	Habilitation: Neurology, Charité – Universitätsmedizin Berlin, Humboldt University Berlin
2007 - 2009	Resident in Neurology, Cecilie-Vogt-Clinic for Neurology, Charité – Universitätsmedizin
2004 - 2006	Research fellow and junior research group leader, Institute of Cell Biology and Neurobiology, Charité – Universitätsmedizin Berlin
2004 - 2006	Resident in Neuropediatrics, Department of Neuropediatrics, Charité – Universitätsmedizin Berlin
2002	Doctoral degree: Medicine, Charité – Universitätsmedizin Berlin, Humboldt University Berlin
2001 - 2003	Postdoctoral Fellow, Department of Neurology, Harvard Institutes of Medicine, Harvard Medical School, Boston, USA
1995 - 2004	Medical training and approbation at Humboldt University Berlin, Charité – Universitätsmedizin Berlin

Research fields

Our group is active in the field of neuroimmunology and neurodegeneration with the following major areas:

- Cellular and molecular mechanisms of immune cell-mediated CNS injury
- Cellular and molecular mechanisms of cell-autonomous neurodegeneration
- Mechanisms of CNS infection
- Role of innate immune receptors in CNS development

Activities in the scientific community, honors, awards

since 2013	Faculty, International Graduate Program Medical Neurosciences, Berlin
since 2013	Lecturer of the Studienstiftung des Deutschen Volkes, Bonn
since 2010	Deputy chief administrative officer SFB TRR 43
since 2008	Faculty, Berlin Graduate Research School for Infectious Diseases and Immunology, Berlin
2008 - 2010	Faculty of the Research Training Group (GRK) 1258 "Neuroinflammation", Berlin
2005 - 2007	Rahel Hirsch grant for Habilitation, Charité – Universitätsmedizin Berlin

2004 Scholarship for research-AIP, Charité – Universitätsmedizin Berlin
1998 - 2004 Scholarship, Studienstiftung des deutschen Volkes, Bonn

Reviewer (Journals, ad hoc): Nat Med, J Neurosci, Brain, Trends Neurosci, J Immunol, Brain Res, Glia, a.o.

Selected publications

Rosenberger K, Dembny P, Derkow K, Engel O, Kruger C, Wolf SA, Kettenmann H, Schott E, Meisel A, Lehnardt S. Intrathecal heat shock protein 60 mediates neurodegeneration and demyelination in the CNS through a TLR4- and MyD88-dependent pathway. *Mol Neurodegener.* 2015;10:5.

Rosenberger K, Derkow K, Dembny P, Kruger C, Schott E, Lehnardt S. The impact of single and pairwise Toll-like receptor activation on neuroinflammation and neurodegeneration. *J Neuroinflammation.* 2014;11:166. doi: 10.1186/s12974-014-0166-7.

Lehmann SM, Rosenberger K, Kruger C, Habel P, Derkow K, Kaul D, Rybak A, Brandt C, Schott E, Wulczyn FG, Lehnardt S. Extracellularly delivered single-stranded viral RNA causes neurodegeneration dependent on TLR7. *J Immunol.* 2012;189(3):1448-58.

Lehmann SM, Kruger C, Park B, Derkow K, Rosenberger K, Baumgart J, Trimbuch T, Eom G, Hinz M, Kaul D, Habel P, Kalin R, Franzoni E, Rybak A, Nguyen D, Veh R, Ninnemann O, Peters O, Nitsch R, Heppner FL, Golenbock D, Schott E, Ploegh HL, Wulczyn FG, Lehnardt S. An unconventional role for miRNA: let-7 activates Toll-like receptor 7 and causes neurodegeneration. *Nat Neurosci.* 2012;15(6):827-35.

Kaul D, Habel P, Derkow K, Kruger C, Franzoni E, Wulczyn FG, Bereswill S, Nitsch R, Schott E, Veh R, Naumann T, Lehnardt S. Expression of Toll-like receptors in the developing brain. *PLoS One.* 2012;7(5):e37767.

Siffrin V, Radbruch H, Glumm R, Niesner R, Paterka M, Herz J, Leuenberger T, Lehmann SM, Luenstedt S, Rinnenthal JL, Laube G, Luche H, Lehnardt S, Fehling HJ, Griesbeck O, Zipp F. In vivo imaging of partially reversible th17 cell-induced neuronal dysfunction in the course of encephalomyelitis. *Immunity.* 2010;33(3):424-36.

Lehnardt S. Innate immunity and neuroinflammation in the CNS: the role of microglia in Toll-like receptor-mediated neuronal injury. *Glia.* 2010;58(3):253-63.

Lehnardt S, Schott E, Trimbuch T, Laubisch D, Krueger C, Wulczyn G, Nitsch R, Weber JR. A vicious cycle involving release of heat shock protein 60 from injured cells and activation of toll-like receptor 4 mediates neurodegeneration in the CNS. *J Neurosci.* 2008;28(10):2320-31.

Lehnardt S, Henneke P, Lien E, Kasper DL, Volpe JJ, Bechmann I, Nitsch R, Weber JR, Golenbock DT, Vartanian T. A mechanism for neurodegeneration induced by group B streptococci through activation of the TLR2/MyD88 pathway in microglia. *J Immunol.* 2006;177(1):583-92.

Lehnardt S, Massillon L, Follett P, Jensen FE, Ratan R, Rosenberg PA, Volpe JJ, Vartanian T. Activation of innate immunity in the CNS triggers neurodegeneration through a Toll-like receptor 4-dependent pathway. *Proceedings of the National Academy of Sciences of the United States of America.* 2003;100(14):8514-9.

Lehnardt S, Lachance C, Patrizi S, Lefebvre S, Follett PL, Jensen FE, Rosenberg PA, Volpe JJ, Vartanian T. The toll-like receptor TLR4 is necessary for lipopolysaccharide-induced oligodendrocyte injury in the CNS. *J Neurosci.* 2002;22(7):2478-86.