Prof. Michael Heneka, MD

Rheinische Friedrich-Wilhelms-Universität Bonn
German Center for Neurodegenerative Diseases (DZNE)

Director Department for Neurodegenerative Diseases / Neurology at the University Hospital Bonn
DZNE Cooperation Unit Leader: Neuroinflammation
E-Mail: michael.heneka @ukbonn.de, michael.heneka@dzne.de

Research Expertise

Prof. Heneka is involved in basic science and translational research with focus on neurodegeneration and neuroinflam-mation. His major disease of interest and research topics include Alzheimer disease, amyotrophic lateral sclerosis, septic encephalopathy and multiple sclerosis. In clinical neurology, Prof. Heneka holds special expertise in neurodegenerative and autoimmune CNS disorders.

Education / Training

University of Bonn, Germany, Neurology, Professorial qualification (Habilitation), 2003
University of Bonn, Germany, Neurology, Specialty qualification, 2002
University of Tübingen, Germany, Medicine, MD, 1996

Appointments / Positions Held

2016-Present
Director Department for Neurodegenerative Diseases / Neurology at the University Hostpital Bonn
2008 - 2016
Full Professor (W3) for Clinical Neurosciences, Head of the Clinical Research Group 177 of the DFG, University of Bonn
2004 - 2008
Full Professor (C3) for Molecular Neurology, University of Münster
2004 Senior Clinical Fellow in Neurology, University of Bonn
1999 - 2003
Resident in Neurology, University of Bonn
1996 - 1999
Resident in Neurology, University of Tübingen
1992 - 1996
Predoctoral research fellow in the Dept. of Pharmacology, University of Cologne

Honors / Awards

2013 - present
Associate Editor Neurology, Neuroimmunology and Neuroinflammation
2013
Hans und Ilse Breuer Award for Alzheimer Research
2012 - present
Editorial Board Molecular Neurobiology
2011 Christa Lorenz Award for Amyotrophic Lateral Sclerosis Research
2010 - present
Editorial Board Journal of Neurochemistry
2007 - present
Board Member of the Competence Network Degenerative Dementias (CNDD)

10 Most Relevant Publications

1. **Heneka MT**, Dewachter I, Sastre M, Dumitrescu-Ozimek L, Cuiperi K, a gonist pioglitazone and ibuprofen reduces inflam-mation and Aβ 1-42 levels in APP V717I transgenic mice. Brain 2005;128:1442-1453.
2. Schütz B, Reimann J, Dumitrescu-Ozimek L, Kappes-Horn K, Landreth GE, Schürmann B, Zimmer A, **Heneka MT**. The oral antidiabetic pioglitazone protects from neurodegeneration and ALS-like symptoms in SOD1-G93A transgenic mice. J Neurosci 2005;25:7805-7812.
3. Sastre M, Dewachter I, Rossner S, Bogdanovic N, Rosen E, Borghraef P, Evert BO, Dumitrescu-Ozimek D, Thal DR, Landreth GE, Walter J, Klockgether T, Van Leuven F, **Heneka MT** (2006) NSAIDs suppress BACE1 gene expression by the activation of PPARγ. Proc Natl Acad Sci USA 2006;103:443-448.
4. **Heneka MT**, Ramanathan M, Jacobs AH, Dumitres-cu-Ozimek L, Debeir T, Sastre M, Bilkei-Gorzo A, Zimmer A, Galldiks N, Hoehn M, Heiss WD, Klockgether T, Staufenbiel M. Locus ceruleus degeneration promotes Alzheimer pathogene-sis in APP transgenic mice. J. Neurosci 2006;26:1343-1354.
5. Weberpals M, Hermes M, Hermann M, Kummer MP, Terwel D, Semmler A, Berger M, Schäfers M, **Heneka MT** (2009) NOS2 gene deficiency protects from sepsis-induced long-term cognitive deficits, J Neurosci, 29:14177-84.
6. **Heneka MT**, Nadrigny F, Regen T, Dumitrescu-Ozimek L, Terwel D, Jardanhazi-Kurutz D, Walter J, Kirchhoff F, Hanisch U, Kummer MP (2010) Locus ceruleus controls Alzheimer disease pathology by modulating microglial functions through norepinephrine. Proc. Natl. Acad. Sci. U.S.A., 107:6058-63.
7. Kummer MP, Hermes M, Delekarte A, Hammerschmidt T, Kumar S, Terwel D, Walter J, Pape HC, König, S, Roeber S, Jessen F, Klockgether T, Korte M, **Heneka MT** (2011) Nitration of tyrosine 10 critically enhances amyloid β aggregation and plaque formation. Neuron 71:833-44.
8. **Heneka MT**, Kummer MP, Stutz A, Delekate A, Schwartz S, Vieira-Saecker A, Griep A, Axt D, Remus A, Tzeng TC, Gelpi E, Halle A, Korte M, Latz E, Golenbock DT (2013) NLRP3 is activated in Alzheimer's disease and contributes to pathology in APP/PS1 mice. Nature. 493: 674-678.
9. Venegas C, Kumar S, Franklin BS, Dierkes T, Brinkschulte R, Tejera D, Vieira-Saecker A, Schwartz S, Santarelli F, Kummer MP, Griep A, Gelpi E, Beilharz M, Riedel D, Golenbock DT, Geyer M, Walter J, Latz E, **Heneka MT**. Microglia-derived ASC specks cross-seed amyloid-β in Alzheimer's disease. Nature. 2017 Dec 20;552(7685):355-361.
10. Ising C, Venegas C, Zhang S, Scheiblich H, Schmidt SV, Vieira-Saecker A, Schwartz S, Albasset S, McManus RM, Tejera D, Griep A, Santarelli F, Brosseron F, Opitz S, Stunden J, Merten M, Kayed R, Golenbock DT, Blum D, Latz E, Buée L, **Heneka MT**. NLRP3 inflammasome activation drives tau pathology. Nature. 2019 Nov;575(7784):669-673.