Dr. Annett Halle, MD

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center of advanced european studies and research (caesar), Max Planck Research Group „Neuroimmunology“

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Research Expertise

Dr. Halle's group studies innate immune mechanisms and microglial function in Alzheimer's disease using cell culture techniques and mouse models of Alzheimer's disease.

Education / Training

Charité – University Medicine Berlin,

Medical Neuroscience, MD thesis, 2005

Free University Berlin, Humboldt University Berlin,
Clinical Medicine, MD, 2003

Appointments / Positions Held

2011 - present
Max-Planck Research Group leader
center of advanced european studies and research (caesar), Bonn, Germany

2009 - 2011
Research fellow and resident in Neuropathology
Department of Neuropathology, Charité – University Medicine Berlin, Germany

2005 - 2008
Postdoctoral fellow and instructor in Internal Medicine,
Department of Infectious Diseases, University of Massachusetts, Worcester, USA

2003 - 2005
Medical dissertation and resident in Neurology, Department of Experimental Neurology, Charité – University Medicine Berlin, Germany

2000
Research internship, Department of Cell Biology, Harvard University, Boston, USA

Honors / Awards

2010
Ernst Jung-Career Award for Medical Research

2008
Lydia Rabinowitsch Fellowship for young scientists, Charité Berlin

2005 - 2007
Postdoctoral Fellowship, German Academic Exchange Foundation (DAAD)

2006
Young Scientist Award, Science Foundation Berlin, Germany

2006
Award for the best medical dissertation of 2005, Berlin Society for Psychiatry and Neurology

2005
Humboldt Prize (Prize for best dissertation of the year, Humboldt University Berlin)

10 Most Relevant Publications for Dr. Annett Halle

1. Schnaars M, Beckert H, **Halle A**. Assessing β-amyloid-induced NLRP3 inflammasome activation in primary microglia. Methods Mol Biol. 2013;1040:1-8.

2. Krabbe, G.*, **Halle, A**.*, Matyash, V., Rinnenthal, J. L., Eom, G. D., Bernhardt, U., Miller, K. R., Prokop, S., Kettenmann, H. and Heppner, F. L., Functional impairment of microglia coincides with Beta-amyloid deposition in mice with Alzheimer-like pathology. PLoS One 2013. 8: e60921.

3. Heneka, M. T., Kummer, M. P., Stutz, A., Delekate, A., Schwartz, S., Vieira-Saecker, A., Griep, A., Axt, D., Remus, A., Tzeng, T. C., Gelpi, E., **Halle, A**., Korte, M., Latz, E. and Golenbock, D. T., NLRP3 is activated in Alzheimer's disease and contributes to pathology in APP/PS1 mice. Nature 2013. 493: 674-678.

4. Stewart, C. R., Stuart, L. M., Wilkinson, K., van Gils, J. M., Deng, J., **Halle, A**., Rayner, K. J., Boyer, L., Zhong, R., Frazier, W. A., Lacy-Hulbert, A., El Khoury, J., Golenbock, D. T. and Moore, K. J., CD36 ligands promote sterile inflammation through assembly of a Toll-like receptor 4 and 6 heterodimer. Nat Immunol 2010. 11: 155-161.

5. Siednienko, J., **Halle, A.**, Nagpal, K., Golenbock, D. T. and Miggin, S. M., TLR3-mediated IFN-beta gene induction is negatively regulated by the TLR adaptor MyD88 adaptor-like. Eur J Immunol 2010. 40: 3150-3160.

6. **Halle, A.,** Hornung, V., Petzold, G. C., Stewart, C. R., Monks, B. G., Reinheckel, T., Fitzgerald, K. A., Latz, E., Moore, K. J. and Golenbock, D. T., The NALP3 inflammasome is involved in the innate immune response to amyloid-beta. Nat Immunol 2008. 9: 857-865.

7. **Halle, A**.*, Zhou, S*., Kurt-Jones, E. A., Cerny, A. M., Porpiglia, E., Rogers, M., Golenbock, D. T. and Finberg, R. W., Lymphocytic choriomeningitis virus (LCMV) infection of CNS glial cells results in TLR2-MyD88/Mal-dependent inflammatory responses. J Neuroimmunol 2008. 194: 70-82.

8. Hornung, V., Bauernfeind, F., **Halle, A**., Samstad, E. O., Kono, H., Rock, K. L., Fitzgerald, K. A. and Latz, E., Silica crystals and aluminum salts activate the NALP3 inflammasome through phagosomal destabilization. Nat Immunol 2008. 9: 847-856.

9. Jain, V., **Halle, A.**, Halmen, K. A., Lien, E., Charrel-Dennis, M., Ram, S., Golenbock, D. T. and Visintin, A., Phagocytosis and intracellular killing of MD-2 opsonized gram-negative bacteria depend on TLR4 signaling. Blood 2008. 111: 4637-4645.

10. **Halle, A**.*, Bermpohl, D.*, Freyer, D., Dagand, E., Braun, J. S., Bechmann, I., Schroder, N. W. and Weber, J. R., Bacterial programmed cell death of cerebral endothelial cells involves dual death pathways. J Clin Invest 2005. 115: 1607-1615.

*These authors contributed equally