

Prof. Dr. med. Anja SCHNEIDER

*09.08.1974, German, female

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Current position

Director (W3), Department of Neurodegenerative Diseases & Geriatric Psychiatry/Psychiatry
Group Leader Translational Dementia Research, DZNE Bonn

Clinical and research expertise

My research focuses on neurodegeneration in basic science and translational research. My research group studies the role of extracellular vesicles in neurodegenerative diseases, e.g. Alzheimer's & Parkinson's Disease and Frontotemporal Dementia, as well as the development of novel fluid biomarkers. My clinical specialization is the diagnosis and treatment of neurodegenerative diseases, including cohort studies and clinical intervention trials.

Academic qualifications

- 2010 Habilitation: Experimental Psychiatry, University Medicine Göttingen, Germany
- 2003 Doctorate, Medicine, University of Hamburg & Max Planck Units for Structural Molecular Biology, Hamburg, Germany
- 1997 - 1999 Postgraduate Study, Molecular Biology, University of Hamburg, Germany
- 1994 - 2001 Medicine, University of Heidelberg & University of Hamburg, Germany

Postgraduate professional career

- 2016 - pres. Director, Dept. of Neurodegenerative Disease and Geriatric Psychiatry/ Psychiatry, University Hospital Bonn, Germany
- 2016 - pres. Senior Group Leader, Translational Dementia Research, German Center for Neurodegenerative Diseases, DZNE, Bonn, Germany
- 2014 - 2016 Senior Physician, Department of Psychiatry, University Medicine Goettingen, Germany
- 2007 - 2010 Resident in Psychiatry, University Medicine Goettingen, Germany
- 2004 - 2007 Research Fellow, Max Planck Institute of Experimental Medicine, Goettingen, Germany
- 2002 - 2004 Resident in Neurology, University of Tübingen, Germany
- 1996 - 1999 Predoctoral research fellow, Max Planck Unit for Structural Molecular Biology, Hamburg & Alzheimer Research Center, Massachusetts General Hospital, Harvard University, Boston, USA

Honors and awards

- 2015 Award from the German Society for Psychiatry for research in psychiatric diseases
- 2012 - 2014 Heisenberg Fellowship, German Research Foundation
- 2007 - 2009 Heidenreich-Von Siebold Habilitation Fellowship
- 2008 Steinberg-Krupp award for Alzheimer Research
- 1995 - 2001 Fellowship "Studienstiftung des Deutschen Volkes"

Memberships and professional functions

- 2021 - pres. Associate Editor Journal of Alzheimer's Disease
- 2020 - pres. Member of the Medical Faculty Council, University Bonn, Germany
- 2019 - pres. Site-Speaker Bonn, Hertie-Network and Academy for Excellence in Clinical Neurosciences (a clinician and medical scientist program)
- 2016 - pres. Member of the Steering Committee, TRA Life and Health, University of Bonn
- 2016 - pres. Head of the Molecular Dementia Research Unit, German Society for Biological Psychiatry
- 2017 - pres. Member of the BONFOR Commission, Medical Faculty, University of Bonn
- 2017 - pres. Head of the B-center Frontotemporal Dementia, Bonn Center for Rare Diseases, University Clinic Bonn, Germany

Principal funding

- 2021 - 2023 Cure Alzheimer Foundation, "Reversal of Tau Pathology by an Adenosine A1 receptor antagonist."
- 2020 - 2022 VERUM Foundation, "Protein misfolding cyclic amplification analysis of plasma and CSF exosomal alpha-synuclein for the diagnosis of Parkinson's disease and Lewy Body dementia"
- 2020 - 2022 Deutsche Demenzhilfe, „Automatic speech analysis as a diagnostic marker in dementia“
- 2017 - 2021 Helmholtz/DZNE, Multicenter, longitudinal cohort DESCRIBE-FTD
- 2019 - 2021 Helmholtz/DZNE, I2A Grant PhenoAlz: phenomolecular test for Alzheimer's biomarker
- 2016 - 2019 Michael J Fox Foundation, Improvement of isolation and quantification of CSF and plasma exosomal α -Synuclein in patients with Parkinson's Disease (PD) and Dementia with Lewy Bodies (DLB)
- 2014 - 2017 PI, Helmholtz Alberta Initiative- Prion Strains, Structure, tropism and host
- 2014 - 2018 EU, Euronanomed, GlioEx Nanoengineered exosomes for glioma treatment
- 2012 - 2015 DFG Heisenberg Fellowship
- 2011 - 2018 DFG grant „Exosomes in neurodegeneration“
- 2009 - 2017 DFG CMPB und CNMBP, Cluster of Excellence and DFG Research Center Nanoscale Microscopy and Molecular Physiology, Göttingen, PI (C2, Aggregopathies).
- 2013 - 2015 Michael J Fox Foundation, Exosomal α -Synuclein as a novel biomarker in Parkinson's Disease
- 2013 - 2015 Michael J Fox Foundation Superresolution Microscopy for CSF diagnosis in Parkinson's Disease

Top 10 Publications

1. Bartels C, Kögel A, [...], Pentzek M, Schickanz S, **Schneider A**. Use of Cerebrospinal Fluid Biomarkers of Alzheimer's Disease Risk in Mild Cognitive Impairment and Subjective Cognitive Decline in Routine Clinical Care in Germany. *J Alzheimer's Dis.* 2020;78(3):1137–48. doi:10.3233/JAD-200794.
2. Mukherjee C, [...], Krämer-Albers E-M, **Schneider A**, Simons M. Oligodendrocytes Provide Antioxidant Defense Function for Neurons by Secreting Ferritin Heavy Chain. *Cell Metab.* 2020;32(2):259-272. e10. doi: 10.1016/j.cmet.2020.05.019.
3. Nerius M, [...], Doblhammer G, **Schneider A**. Glucocorticoid Therapy is Associated with a Lower Risk of Dementia. *J Alzheimer's Dis.* 2020;73(1):175–83. doi:10.3233/JAD-190444.
4. Jain G*, Stüendl A*, [...], **Schneider A***, Fischer A*. A combined miRNA–piRNA signature to detect Alzheimer's disease. *Transl Psychiat.* 2019;9(1):250. doi:10.1038/s41398-019-0579-2. ***equal contribution**
5. Gong J, [...], Zweckstetter M, Outeiro T, **Schneider A**. Translocator protein ligand protects against neurodegeneration in the MPTP mouse model of Parkinsonism. *J Neurosci.* 2019;39(19):2070–18. doi:10.1523/JNEUROSCI.2070-18.2019.
6. Bartels C, Wagner M, Wolfsgruber S, Ehrenreich H, **Schneider A**, InitiativeADN. Impact of SSRI Therapy on Risk of Conversion From Mild Cognitive Impairment to Alzheimer's Dementia in Individuals With Previous Depression. *Am J Psychiat.* 2018;175(3):232–41. doi:10.1176/appi.ajp.2017.17040404.
7. Hernandez AM, [...], **Schneider A**, [...], Fischer A. The diphenylpyrazole compound anle138b blocks A β channels and rescues disease phenotypes in a mouse model for amyloid pathology. *Embo Mol Med.* 2018;10(1):32–47. doi:10.15252/emmm.201707825.
8. Stüendl A, [...], Mollenhauer B, **Schneider A**. Induction of α -synuclein aggregate formation by CSF exosomes from patients with Parkinson's disease and dementia with Lewy bodies. *Brain.* 2016;139(2):481–94. doi:10.1093/brain/aww346
9. Kunadt M, [...], Weishaupt JH, **Schneider A**. Extracellular vesicle sorting of α -Synuclein is regulated by sumoylation. *Acta Neuropathol.* 2015;129(5):695–713. doi:10.1007/s00401-015-1408-1.
10. Rajendran L, **Schneider A**, [...], Simons M, Jennings G, Knölker H-J, Simons K. Efficient Inhibition of the Alzheimer's Disease β -Secretase by Membrane Targeting. *Science.* 2008;320(5875):520–3. doi:10.1126/science.1156609