

Curriculum vitae

Prof. Dr. Dr. Hannelore Ehrenreich, MD, DVM

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Training

1980	Graduation from Veterinary Medicine, Universities of Hannover/Munich
1981	Doctor of Veterinary Medicine, University of Munich
1987	Graduation from Medicine, University of Munich
1989	Doctor of Medicine, University of Munich, <i>summa cum laude</i>
1994	Habilitation (Neurology, Psychiatry, Neuroendocrinology), University Göttingen
1995	Board Certificate for Neurology & Psychiatry, Göttingen
1998	Professor of Neurology & Psychiatry, University of Göttingen
2004	Board Certificate for Psychotherapy
2008	Professor of Biology & Psychology, University of Göttingen (<i>Honorarprof.</i>)

Academic positions & appointments

1980-1981	Clinical Fellow, Veterinary Gynaecology & Obstetrics, University of Munich
1982-1984	Research Fellow, Max Planck Institute of Psychiatry, Munich
1984-1986	Clinical Fellow, Department of Internal Medicine, University of Munich
1987-1988	Residency, Department of Neurology, University of Munich
1988-1992	Postdoctoral Fellow NIAID (Dr. Anthony S. Fauci), NIH, Bethesda, MD, USA
1992-1995	Residency, Departments of Neurology and Psychiatry, University of Göttingen
1996-2003	Consultant of Neurology and of Psychiatry, University of Göttingen
1995– 31.01.24	Head, Clinical Neuroscience, MPI of Experimental Medicine / MPI-NAT
1.2.24-31.12.28	Head, Experimental Medicine, Central Institute of Mental Health, Mannheim

Collaborative Research (selected)

2005-2019	Coordinator of C1 area (<i>'Neuropsychiatry'</i>) of the DFG Research Center for Nanoscale Microscopy and Molecular Physiology of the Brain (CNMPB), Göttingen, Germany
since 2007	Member (PI) of the GGNB (Göttingen Graduate School for Neuroscience, Biophysics and Molecular Biosciences)
since 2006	Member (PI; Faculty) of several International Max Planck Research Schools (IMPRS Neuroscience, IMPRS Genome Science) and CSN (Center of Systems Neuroscience)
since 2008	Member (PI) of several EU consortia (e.g. EU-AIMS, ExtraBRAIN EU-FP7, ERA-NET Neuron, NeuConnect, EURAS)

Awards & honors (selected)

1985	DAAD Guest Lecturer, University of the Philippines, Manila
1988 - 1991	BMBF Postdoc with Dr. Anthony S. Fauci, NIAID - NIH, Bethesda, U.S.A.
1992 - 1995	DFG Habilitation Stipend (3 years), University of Göttingen
2000 - 2002	Vice President, Georg-August-University, Göttingen
2002 - 2010	Member of several US Advisory Boards Neuroprotection/Neuroregeneration
2003 - 2016	Member of the Advisory Board, Medical University - MHH, Hannover
2005	Wilhelm-Feuerlein Award for Addiction Research
2007 - present	Member of the Felix-Wankel Kuratorium (Animal Protection)
2010 - 2019	Member, Scientific Advisory Board & Ombudsperson, German Primate Center
2015 - present	Member of the Scientific Advisory Board, Biocenter Würzburg
2016	Member of the Leopoldina, German National Academy of Science
2020	Jean Delay Prize of the World Psychiatric Association (WPA)
2022	Award of an ERC Advanced Grant (Acronym: BREPOCI)

15 recent key papers (out of >300 peer reviewed original papers listed in PubMed)

Mennen SS, Franta M, Begemann M, Wilke JBH, Schröder R, Butt UJ, Cortés-Silva JA, Çakır U, Güra M, de Marées M, Daguano Gastaldi V, Burtcher J, Schanz J, Bohn M, Burtcher M, Fischer A, Poustka L, Hammermann P, Stadler M, Lühder F, Singh M, Nave KA, Miskowiak KW, **Ehrenreich H. (2024)** Tolerability and first hints for potential efficacy of motor-cognitive training under inspiratory hypoxia in health and neuropsychiatric disorders: a translational viewpoint. **Neuroprotection** 1-15. DOI: 10.1002/nep3.47

Singh M, Zhao Y, Gastaldi VD, Wojcik SM, Curto Y, Kawaguchi R, Merino RM, Garcia-Agudo LF, Taschenberger H, Brose N, Geschwind D, Nave KA, **Ehrenreich H. (2023)** Erythropoietin re-wires cognition-associated transcriptional networks. **Nat Commun.** 21;14(1):4777. doi: 10.1038/s41467-023-40332-8. PMID: 37604818; PMCID: PMC10442354.

Depp C, Sun T, Sasmita AO, Spieth L, Berghoff SA, Nazarenko T, Overhoff K, Steixner-Kumar AA, Subramanian S, Arinrad S, Ruhwedel T, Möbius W, Göbbels S, Saher G, Werner HB, Damkou A, Zampar S, Wirths O, Thalmann M, Simons M, Saito T, Saido T, Krueger-Burg D, Kawaguchi R, Willem M, Haass C, Geschwind D, **Ehrenreich H**, Stassart R, Nave KA. (2023) Myelin dysfunction drives amyloid- β deposition in models of Alzheimer's disease. **Nature** 618(7964):349-357. doi: 10.1038/s41586-023-06120-6. Epub 2023 May 31. PMID: 37258678; PMCID: PMC10247380.

Ehrenreich H, Gassmann M, Poustka L, Burtcher M, Hammermann P, Sirén AL, Nave KA, Miskowiak K. (2023) Exploiting moderate hypoxia to benefit patients with brain disease: Molecular mechanisms and translational research in progress. **Neuroprotection** 1(1):9-19. doi: 10.1002/nep3.15. Epub 2023 Feb 21. PMID: 37671067; PMCID: PMC7615021.

Arinrad S, Depp C, Siems SB, Sasmita AO, Eichel MA, Ronnenberg A, Hammerschmidt K, Lüders KA, Werner HB, **Ehrenreich H**, Nave KA. (2023) Isolated catatonia-like executive dysfunction in mice with forebrain-specific loss of myelin integrity. **Elife** 9;12:e70792. doi: 10.7554/eLife70792. PMID: 36892455; PMCID: PMC998085.

Daguano Gastaldi V, Bh Wilke J, Weidinger CA, Walter C, Barnkothe N, Teegen B, Luessi F, Stöcker W, Lühder F, Begemann M, Zipp F, Nave KA, **Ehrenreich H (2023)** Factors predisposing to humoral autoimmunity against brain-antigens in health and disease: Analysis of 49 autoantibodies in over 7000 subjects. **Brain Behav Immun.** doi: 10.1016/j.bbi.2022.10.016. Epub 2022 Oct 30. PMID: 36323361.

Ehrenreich H, Garcia-Agudo LF, Steixner-Kumar AA, Wilke JBH, Butt UJ. (2022) Introducing the brain erythropoietin circle to explain adaptive brain hardware upgrade and improved performance. **Mol Psychiatry**, doi: 10.1038/s41380-022-01551-5.

Fernandez Garcia-Agudo L, Steixner-Kumar AA, Curto Y, Barnkothe N, Hassouna I, Jähne S, Butt UJ, Grewe K, Weber MS, Green K, Rizzoli S, Nacher J, Nave KA, **Ehrenreich H (2021)** Brain erythropoietin fine-tunes a counterbalance between neurodifferentiation and microglia in the adult hippocampus. **CELL Reports** 36(8):109548. doi: 10.1016/j.celrep.2021.109548. PMID: 34433021.

Wilke JBH, Hindermann M, Berghoff SA, Zihler S, Arinrad S, Ronnenberg A, Barnkothe N, Steixner-Kumar AA, Röglin S, Stöcker W, Hollmann M, Nave KA, Lühder F, **Ehrenreich H (2021)** Autoantibodies against NMDA receptor 1 modify rather than cause encephalitis. **Mol Psychiatry**, doi: 10.1038/s41380-021-01238-3.

Steixner-Kumar AA, Daguano Gastaldi V, Seidel J, Rosenberger A, Begemann M, **Ehrenreich H (2021)** Preadult polytoxicomania – strong environmental underpinnings and first genetic hints. **Mol Psychiatry**, doi: 10.1038/s41380-021-01069-2.

Wakhloo D, Scharkowski F, Curto Y, Butt UJ, Bansal V, Steixner-Kumar AA, Wüstefeld L, Rajput A, Arinrad S, Zillmann MR, Seelbach A, Hassouna I, Schneider K, Ibrahim AQ, Werner HB, Martens H, Miskowiak K, Wojcik SM, Bonn S, Nacher J, Nave KA, **Ehrenreich H (2020)** Functional hypoxia drives neuroplasticity and neurogenesis via brain erythropoietin. **Nat Commun** 11(1):1313, doi: 10.1038/s41467-020-15041-1.

Butt UJ, Steixner-Kumar AA, Depp C, Sun T, Hassouna I, Wüstefeld L, Arinrad S, Zillmann MR, Schopf N, Fernandez Garcia-Agudo L, Mohrmann L, Bode U, Ronnenberg A, Hindermann M, Goebbels S, Bonn S, Katschinski DM, Miskowiak KW, Nave KA, **Ehrenreich H (2020)** Hippocampal neurons respond to brain activity with functional hypoxia, **Mol Psychiatry**, doi: 10.1038/s41380-020-00988-w.

Pan H, Oliveira B, Saher G, Dere E, Tapken D, Mitjans M, Seidel J, Wesolowski J, Wakhloo D, Klein-Schmidt C, Ronnenberg A, Schwabe K, Trippe R, Mätz-Rensing K, Berghoff S, Al-Krinawe Y, Martens H, Begemann M, Stöcker W, Kaup FJ, Mischke R, Boretius S, Nave KA, Krauss JK, Hollmann M, Lühder F, **Ehrenreich H (2019)** Uncoupling the widespread occurrence of anti-NMDAR1 autoantibodies from neuropsychiatric disease in a novel autoimmune model; **Mol Psychiatry**, doi: 10.1038/s41380-017-0011-3.

Janova H, Arinrad S, Balmuth E, Mitjans M, Hertel J, Habes M, Bittner RA, Pan H, Goebbels S, Begemann M, Gerwig UC, Langner S, Werner HB, Kittel-Schneider S, Homuth G, Davatzikos C, Völzke H, West BL, Reif A, Grabe HJ, Boretius S, **Ehrenreich H***, Nave KA (2018) Microglia ablation alleviates myelin-associated catatonic signs in mice, **J Clin Invest**, 128(2):734-745. doi: 10.1172/JCI 97032. *shared last authorship

Bansal V, Mitjans M, Burik CAP, Linnér RK, Okbay A, Rietveld CA, Begemann M, Bonn S, Ripke S, de Vlamming R, Nivard MG, **Ehrenreich H***, Koellinger PD (2018) Genome-wide association study results for educational attainment aid in identifying genetic heterogeneity of schizophrenia. **Nature Communications** 9(1):3078 doi: 10.1038/s41467-018-05510-z. *shared last authorship