



Curriculum Vitae Professor Dr. Hans-Christian Pape

Name: Hans-Christian Pape

Born: 14 April 1956

Main research interests: Fear, anxiety, anxiety disorders; Rhythms of the Brain; Experimental Epilepsy Research

Academic and Professional Career

- as of 2018 President of the Alexander von Humboldt Foundation
- since 2004 Professor and Head of the Department of Physiology I, Münster University, Germany
- 1994 - 2004 Professor and Head of the Department of Physiology, Magdeburg University, Germany
- 1992 Habilitation in Physiology, Medical Faculty, Bochum University, Germany
- 1989 - 1994 Assistant Professor, Department of Neurophysiology, Medical Faculty, Bochum University, Germany
- 1987 - 1988 Postdoctoral Research Associate, Dept. of Neurobiology, SUNY Stony Brook and Section of Neurobiology, Yale University, USA
- 1986 PhD (Dr. rer. nat.) in Biology-Medical Neuroscience, University GHS Essen, Germany
- 1983 - 1987 Research Associate, Section of Neurophysiology, Medical Faculty, University Essen, Germany
- 1982 Graduation in Biology, Bochum University, Germany
- 1976 - 1982 Study of Biology, Bochum University, Germany

Project coordination, Membership in collaborative research projects (Selection)

- since 2008 Speaker of the Transregional Collaborative Research Centre (SFB-TRR 58) "Fear, Anxiety, Anxiety Disorders"
- 2001 - 2013 Local Organizer of the Transregional Collaborative Research Centre (SFB-TR3) "Mesial Temporal Lobe Epilepsy"
- 1997 - 2004 Speaker of the Collaborative Research Centre (SFB 426) "Limbic Structures and Functions"

Functions in Scientific Societies and Committees (Selection)

- 2016 - 2017 Speaker of the Scientific Committee of the German Science Council
- 2011 - 2017 Member of the German Science Council
- since 2006 Speaker of the Research Unit "Neuromedicine", Münster University, Germany
- since 2006 Member, Board of Directors of the "Interdisciplinary Centre of Clinical Research", Münster University, Germany
- 1999 - 2005 Member of the Senate of the German Research Foundation (DFG)

Honours and Awarded Memberships (Selection)

- 2024 Verdienstkreuz 1. Klasse, Federal Republic of Germany
- 2023 Honorary Doctorate of the Faculty of Medicine, Julius-Maximilians-Universität Würzburg, Germany
- 2008 Research Award of the Münster University, Germany
- 2007 Max Planck Research Award
- 2006 Distinguished Teacher of the Year, Münster University, Germany
- since 2003 Member of the German National Academy of Sciences Leopoldina
- 1999 Gottfried Wilhelm Leibniz Award of the DFG
- 1997 Research Award of the Magdeburg University, Germany
- 1993 Heisenberg Stipend of the German Research Foundation (DFG)
- 1990 Bennigsen-Foerder-Award, Ministry of Science and Research NRW

Major Scientific Interests

Christian Pape's research aims at mechanisms in the mammalian brain that functionally couple remote synaptic networks to execute complex behaviours. The focus is on the thalamus, the amygdala and related circuits. Early findings that neurons in the thalamus possess intrinsic pacemaker activity and thereby contribute to synchronization of electrical forebrain activity have largely shaped the current view on the regulation of sleep-wake-states. Importantly, Pape and his colleagues have also identified alterations of these mechanisms that lead to pathological patterns of synchrony, like absence seizures. These results formed the basis for linkage with absence epilepsy in human disease and current attempts of tailored drug design by others.

When establishing a Collaborative Research Centre at Magdeburg University (1997), Pape took the chance to extend his research into the field of fear and anxiety. Being a physiologist at a Medical School, this interest was driven by the large clinical importance of anxiety disorders and, additionally, by emergent ideas of fear memory as an excellent model to study learning at various levels from synapse to behaviour. His findings that synchronized theta activity in amygdala-hippocampus-prefrontal cortex pathways determines aversive responses during learned fear is considered a landmark in the field. It also closes the loop to Pape's previous studies on synchronized activity in the thalamus.

Moving to Münster University paved the way for collaborations with human imaging and neurogenetic studies in a Collaborative Research Centre dedicated to anxiety and anxiety disorders, which Pape coordinates since 2008. One result is the first-time identification of synaptic actions of neuropeptide S (NPS) -a novel transmitter- in the amygdala and their impact on fear extinction. Stimulated by these findings in rodents, studies of the centre associated a genetic variation of the NPS receptor to over-interpretation of fear and panic disorder in humans.