Leopoldina
Nationale Akademie
der Wissenschaften

Curriculum Vitae Professor Dr. Klaus Unsicker

Name: **Klaus Unsicker**
Born: **3 January 1942**
Family Status: **married**

Academic and Professional Career

since 2009	Guest Professor, Department of Molecular Embryology, Medical Faculty, University of Freiburg, Germany
2006	Visiting Professor, Institute of Biotechnology, University of Helsinki, Finland
2000 - 2004	Founding Member and Director, Interdisciplinary Center for Neurosciences (IZN), University of Heidelberg, Germany
1992 - 2009	Full Professor, Anatomy & Cell Biology, Director Neuroanatomy, University of Heidelberg, Germany
1989 - 1990	Visiting Professor, Cold Spring Harbor Laboratories, NIH / NCI Laboratory for Chemoprevention (M. Sporn), Bethesda, Maryland, USA
1983 - 1984	Visiting Professor, Department of Biology (S. Varon), University of California at San Diego, USA
1978 - 1992	Full Professor, Anatomy & Cell Biology, Director Neuroanatomy, University of

Marburg, Germany

1976 - 1977 Associate Professor, Anatomy, University of Kiel, Germany

1970 - 1975 Postdoctoral Fellow

1973 Habilitation / Docent, Anatomy, University of Kiel, Germany

1968 M.D., Anatomy, University of Kiel, Germany

1961 – 1968 Medical School, Universities of Bonn, Munich, Kiel, Germany

Project coordination, Membership in collaborative research projects (Selection)

2009 - 2012 Member DFG Collaborative Research Grant (SFB) 592 “Signaling mechanisms in embryogenesis and organogenesis”

2004 - 2009 Vice Speaker SFB / DFG Collaborative Research Grant (SFB) 636 „Learning and Memory“

2003 - 2009 Coordinator Partnership Hebrew University Jerusalem / University Heidelberg

2001 - 2007 Founding Member BIOQUANT Heidelberg, Germany

1999 - 2007 Speaker SFB / DFG Collaborative Research Grant (SFB) 488 „Molecular and Cellular Bases of Neural Development“

1998 - 2006 Speaker DFG Collaborative Research Group “Central Aminergic Systems”

1994 - 1999 Member DFG Collaborative Research Grant (SFB) 317 “Molecular Neurobiology”

Functions in Scientific Societies and Committees (Selection)

since 2010 Member Scientific Advisory Board, Neuroscience Center, University of Helsinki, Finland

2009 - 2010 President Evaluation Committee for Biology, ETH Zurich, Switzerland

2005 - 2006 Rapporteur, Neuroscience Institutes Seewiesen/Andechs, Martinsried, Göttingen, Germany

2004 - 2012	Speaker Neuroscience Panel, German Research Foundation (DFG)
1998 - 2000	President International Society for Developmental Neuroscience
1995 - 1999	Member Committees for Collaborative Research Grants, German Research Foundation
1994 - 1995	President Anatomical Society
1992 - 1996	Scientific Advisory Board, Society of German Natural Scientists and Physicians
1990	Ad hoc Mitglied National Institutes of Health USA, Neuroscience Panel B

Honours and Awarded Memberships (Selection)

2007	Honorary Membership Romanian Society for Cell Biology
2003	Honorary doctorate, University Marburg, Germany
2001	Aschoff Medal, Medical Society and Faculty, University Freiburg, Germany
1997	Max-Planck Research Award for International Cooperation
1997	Jan Swammerdam Lecture Amsterdam, the Netherlands
1992	German Academy of Sciences Leopoldina
1981	Research Medal University of Helsinki, Finland

Major Scientific Interests

Current major topics of our research include (1) development of neural crest and cell fate determination in the sympatho-adrenal (SA) cell lineage, (2) functions of GDF-15 in the lesioned and unlesioned nervous system, and (3) FGF signaling in adult neurogenesis and in major depression. (1) Sympathetic neurons and neuroendocrine chromaffin cells are closely related derivatives of the SA cell lineage and originate from a common progenitor, as recently shown by us using single cell electroporation into delaminating neural tube cells. Progenitors of sympathetic neurons and chromaffin cells are likely to become phenotypically different during migration to their target sites, sympathetic ganglia and adrenal gland. Subpopulations of chromaffin cells die after birth. We are currently studying implications of glucocorticoids and autophagy in the death process. (2) GDF-15 is a member of the TGF-ß superfamily and widely expressed in the brain and peripheral nervous system, albeit at low levels. GDF-15 is a very potent neurotrophic factor for lesioned dopaminergic neurons in the substantia nigra and other neuron populations. In peripheral nerves GDF-15 regulates myelination. Current studies aim to reveal the significance of GDF-15 in CNS and peripheral nerve lesions. (3) We have made important contributions to research on FGFs and TGF-ßs. A current focus of of our research on FGF signalling includes its implications in the differentiation of subsets of astroglial cells and in neurogenesis within the adult hippocampal formation. Furthermore, we investigate the role of FGF-2 and FGF receptors in major depression. We exploit the advantages of conditional and combinatorial deletion of genes in mice. Studies on neural crest derivatives are preferentially performed in chick embryos.