Curriculum Vitae

Harald Herrmann, Dr. rer. nat.

Present Position:	a.pl. Professor for Cell Biology University of Heidelberg
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Date of Birth:	20. March 1950
Study of Biology:	University of Hamburg
Doctoral Thesis:	1980; Institute of Biochemistry, Chemisches Staatsinstitut University of Hamburg, Title: “Etherlipid Metabolism of Leishmania donovani“.
Habilitation:	1996; Habilitation in Cell Biology, University of Hamburg

Positions:

1980 – 1987	Postdoctoral research fellow, Institute of Biochemistry, University of Vienna, Austria
1987 – 2002	Group leader in the Division of Cell Biology, Head: Prof. Dr. W. W. Franke, German Cancer Research Center (DKFZ), Heidelberg
2002 – 2015	Group leader in the Division of Molecular Genetics, Head: Prof. Dr. P. Lichter, German Cancer Resrach Center (DKFZ), Heidelberg
2016 – present	Group leader, Experimental Neuropathology, Institute of Neuropathology, University Hospital Erlangen

Awards & Honors:

1984	Hoechst Prize with Gerhard Wiche for the characterization of plectin
1985-1986	Scholarship of the Boehringer Ingelheim Fund for Basic Research in Medicine
2007	Board member: European Cytoskeletal Forum; European Society for Intermediate Filament Biology (ESIFB)

Research Fields: Intermediate Filament Biology

Nuclear Envelope Diseases

Myofibrillar Myopathies

Editorial Duties:

Reviewer for	Science, Cell, Cell Systems, Nature, Nature Communication, Developmental Cell, Scientific Reports, Proceedings of the National Acadamy of Sciences USA, Oncotarget, The FASEB Journal, Biophysical Journal, Journal of Cell Biology, Molecular Biology of the Cell, Journal of Cell Science, Experimental Cell Research, European Journal of Cell Biology, Human Molecular Genetics, Journal of Molecular Biology
	German Research Foundation (DFG), N.I.H.
Editorial Board	Journal of Structural Biology, Cytoskeleton, European Journal of Cell Biology

Publications: 186

Sum of times cited: 9,816 (ResearchGate – 27.02.2017)

h-index: 55 (ResearchGate)

Research Interests:

My interest focuses on functional aspects of cell architecture, because it has become apparent in recent years that any cell-cell interaction as observed in tissues and organs heavily relies on structural systems operating within the individual interacting cells. During my early work in the field of the “cytoskeleton”, I encountered crossbridging molecules that integrate the action of microtubules, microfilaments with all major intermediate filament (IF) systems. One eminent factor within this group of “associated” proteins is plectin, discovered and baptized by us during my post-doctoral work in Vienna with Gerhard Wiche. This molecule is ubiquitously found in various cell types of epithelia, muscle and brain, where it distinctly interacts with the respective cell-type specific IF proteins. In the course of investigating their binding properties to IFs, we realized that the assembly process of IFs was hardly

understood at all. Hence, my work concentrated on the assembly mechanism of these various proteins, lamins to keratins, with vimentin as the paradigmatic representative of IF proteins. We developed the “unit-length filament” (ULF) concept, which has been solidly established by various means. To challenge and eventually support the concept, we employed mutant versions of vimentin that “freeze” assembly at this minimal filament stage as well as by mathematical modeling and X-ray crystallography of authentic subfragments. Most importantly, we demonstrated that recently identified mutants of the muscle-specific protein desmin, which cause severe cardiomyopathies, mirror these various stages of assembly as they decay at various steps from the normal path of assembly.

In the future, we will continue to work on the mechanisms how desmin IFs are organized within myocytes, how this system contributes to the stability of these cells under mechanical stress, and how mutant desmins are segregated from wildtype desmin in myocytes as seen in diseased muscle. This work is an ongoing cooperation with the groups of Sarah Köster (Göttingen), Christoph Clemen (Köln) and Rolf Schröder (this institute).