

Biography

Rainer Hedrich pioneered the identification, characterization and biology of plant ion channels and one of the very few leaders in this field. Working with guard cells since 1981 in his PhD work he 1984 using the patch-clamp technique proved for the first time the existents of plant ion channels (Schroeder et al. 1984, NAT.). Following this brake through he studied the structure function and regulation of key channels in the plasma membrane (Keller et al. NAT. 1989), vacuole (Hedrich and Neher NAT. 1987) and chloroplast (Schönknecht et al. 1988 NAT.) Latter he solved structure-function relation of channel genes (Becker et al. 1995, PNAS, Hoth et al. 1997 PNAS, Marten et al. 1999 PNAS, Hoth et al. 2001 TPC; Becker et al. 2004 PNAS), identified hormone- and light-dependent regulation of channel genes and proteins (Phillipar et al. 1991 PNAS, Stoelzle et al. 2003, Fuchs et al. 2004 PNAS, Levshenko e tal. 2005 for review Hedrich and Kudla 2006 CELL). Besides the transport field he is a leader in the field of guard cell turgor and osmoregulation (Levshenko et al. 2007 PNAS, Geiger et al. 2009 PNAS). Prof Hedrich was postdoc with Prof Erwin Neher at the Max-Planck Institute for Biophysical Chemistry at Goettingen. 1991 he became head of Institute for Biophysics at the University of Hannover. Since 1996 he is head of department for Molecular Plant Physiology and Biophysics at the University of Wuerzburg. Rainer Hedrich is member of the German `Academy of Sciences, Leopoldina´.

Name Prof. Dr. Rainer Hedrich
Position Professor and Head of Department
Affiliation Julius-von-Sachs-Institute for Biosciences
University of Würzburg
Julius-von-Sachs-Platz 2
97082 Würzburg
Phone 0931-31-86100
hedrich@botanik.uni-wuerzburg.de
Born 01.04.1957

Career

1978-1981	Study of biology, University of Göttingen
1982-1985	PhD thesis at the 'Pflanzenphysiologisches Institut', Georg-August-Universität zu Göttingen in the group of Prof. Dr. K. Raschke, PhD (summa cum laude)
1985-1987	Postdoc at the „Max-Planck Institut für biophysikalische Chemie“, Göttingen, Department „Membranbiophysik“ - Prof. Dr. E. Neher
1987-1989	„Akademischer Rat auf Zeit“ at the „Pflanzenphysiologisches Institut“, University of Göttingen.
1989	Independent group leader within the framework of „Hess-Förderung der Deutschen Forschungsgemeinschaft“
1990	1. call (rejected): Fiebiger-professorship (C3), Botanisches Institut, Universität Hannover, Heisenberg-Stipendiat der DFG
1991	2. call (rejected): professorship (C4), Botanisches Institut, Universität Köln
1991-1996	3. call (accepted), professorship (C4), University of Hannover, Institut für Biophysik
1994	4. call (rejected): professorship (C4), Biologie III (succession Prof. H. Mohr), University of Freiburg
Since 1996	5. call (accepted): professorship (C4), Lehrstuhl für Molekulare Pflanzenphysiologie und Biophysik, University of Würzburg, Ordinarius at the „Lehrstuhl für Molekulare

Pflanzenphysiologie und Biophysik“

Research Fields	Plant membrane transport Ion channels and transporters
Professional Activities	2001 - 2003 Dean, Biological Faculty, University of Würzburg <i>Since</i> 2005, Member of the „Akademy of Sciences, Leopoldina
Awards	1984, Heinz-Maier-Leibnitz Preis of the DFG, 1989, Gerhard-Hess-Förderpreis of the DFG, 1991, Heisenberg-Stipendium of the DFG, 1999, „Comenius Preis für beste Hochschuldidaktik“, 2001, „Körper-Preis für die europäische Wissenschaft“, 2003, highly cited researcher among 250 in animal and plant sciences, ISI Web of Knowledge (http://isi1.isiknowledge.com/portal.cgi), 2010, European Research Council (ERC) Advanced Grant Award