

CURRICULUM VITAE
JON HUGHES



PERSONAL DETAILS

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Nationality	British and German
Date of birth	03.01.1957
Place of birth	Penarth, Great Britain

PROFESSIONAL BIOGRAPHY

since 09.2000 University of Giessen	University Professor (C4) Chair of Plant Physiology Justus-Liebig University, Senckenbergstr. 3, D35390 Giessen, Germany.
Responsibilities	Director and teaching coordinator, Plant Physiology ERASMUS coordinator for Biology Member of the University Senate Member of the Biology & Chemistry Faculty Board
Research interests	Plant and cyanobacterial photoreceptors and their signal transduction pathways Structure, molecular function and biochemistry of phytochromes Plant molecular genetics
Current external funding (see also FUNDING below)	"Structural basis of initial photoprocesses in cyanobacterial phytochrome Cph1" [with Sineshchekov, LSU Moscow], DFG Hu702/7 "Molecular structure of Cph1 phytochrome" [with L.-O. Essen, Uni Marburg] DFG Hu702/6 "Physcomitrella-based studies of phytochrome cytoplasmic signaling", DFG Hu702/5 "Regulation of phytochrome biological function through light-induced conformational changes: A study using solid-state NMR spectroscopy" [with W. Gärtner (MPI Mülheim), J. Lugtenburg & J. Matysik (University of Leiden, NL)], Volkswagen Foundation I/79977/Hu
Current teaching	BSc (Biol.) modules: 2nd year " <i>Pflanzenphysiologie</i> ", " <i>Entwicklungsbiologie</i> " Final year " <i>Molekularbiologische Grundlagen der Pflanzenphysiologie</i> ", " <i>Photobiologie der Pflanze</i> " MSc (Biol.) modules: " <i>Molekulare Pflanzenphysiologie</i> ", " <i>Molekulare Lichtphysiologie</i> ", " <i>Entwicklungsbiologie der Pflanzen</i> "
Further activities	Chair, Faculty Commission for BSc und MSc programmes in Biology, 2003-4 Co-Chairman, Organising Committee of the European Photobiology Meeting, Marburg, 2003 External examiner, University of Oxford, 2004

01.2000-06.2000 MPI for molecular genetics, Berlin Research	Postdoc, Lehrach Group, Max Planck Institute for Molecular Genetics, Ihnestr. 73, D14195 Berlin Coordinator for "Large-scale automated plant proteomics" (GABI-LAPP, BMBF; approved funding volume ca. €5,000,000); Design and construction of the AIES expression vector " <i>Molekularbiologie und Strukturanalyse von Phytochrom aus Synechocystis</i> " (mit Dr. T. Lamparter & Dr. N. Krauß, FU Berlin); DFG Sfb498/B2
Own funding	
11.1998-12.1999 MPI for molecular genetics/FU Berlin Research	Postdoc (PI J. Hughes), Lehrach Group, MPI-MG, Berlin / Saenger Group, Institute for Crystallography, Free University, Takustr. 6, D14195 Berlin, Germany Biophysical studies of wildtype and mutated Cph1 "Structural studies of the phytochrome system in the cyanobacterium <i>Synechocystis</i> " (PI's J. Hughes & W. Saenger), DFG Sa196/37
Own funding	
Further activities	Grant Application Coordinator "Large-scale automated plant proteomics" (GABI-LAPP / BMBF)
04.1996-03.1998 FU Berlin Research	Habilitation <i>Stipendiat</i> (PI J. Hughes / DFG Hu702/1-1), Institute for Plant Physiology and Microbiology, Free University, Königin-Luise-Str. 12-16, D14195 Berlin, Germany. Autonomous project using molecular genetic and photobiological approaches to study the action of phytochrome in sensing light direction in protonemata "Molecular genetic approaches to study the phytochrome system in <i>Ceratodon</i> ." DFG Hu702/1-2
Own funding	
10.1990-09.1995 FU Berlin Research	Research Associate, Institute for Plant Physiology and Microbiology, Free University, Berlin.
Own funding	
Teaching	Molecular genetic and physiological studies of the phytochrome system Support Commission for young researchers, FU Berlin Monbusho Foundation, Tokyo (with M. Wada, Tokyo Metropolitan University, Japan) Introductory Level: Lab class "Developmental biology", "Introduction to Botany" Advanced Level: Lecture series "Stimulus, response and development in plants"; Lab class "Molekulare photobiologie", "Molecular biology and biochemistry of phytochrome"; diverse Seminars
Further activities	Project supervisor, GMO lab Postdoc representative, Faculty Board Member, Organising committee, European Symposium on Photomorphogenesis, FU Berlin
09.1987-06.1990 University of Georgia Research	Postdoc in project "Phytochrome in green plants" (PI L. Pratt) Miller Plant Sciences Institute, UGA, Athens, Ga 30601, USA Molecular genetic studies of phytochrome gene products in green plants using PCR-based expression methods
09.1985-07.1987 Ruhr University at Bochum Forschung	Senior research fellow (PI J. Hughes), Plant Cell Physiology, Ruhr University, Bochum, Germany.
Own funding	
07.1983-06.1985 University of Freiburg Research	Exchange research fellow in project "Photomorphogenesis under natural conditions" (PI J. Hughes / Royal Society & DFG), Biologie II, Freiburg, Germany.
Own funding	
	Field studies of the role of leaf shade on plant biochemistry and development Royal Society / DFG Scientific Support Fund, Freiburg University

<p>10.1978-05.1983 University of Nottingham</p> <p style="text-align: center;">Research</p>	<p>Postgraduate research student in project "Phytochrome and stomatal physiology in the natural environment" (PI H. Smith / NERC) Smith Group, Botany Dept., University of Leicester und AG Dr. C. Black , Plant physiology, University of Nottingham, Great Britain.</p> <p>Photobiological and physiological studies of the role of changes in the daylight spectrum on stomatal development and physiology</p>
<p>07.1977-09.1977 Kew Gardens Forschung Own funding</p>	<p>Vacation research student (PI T. Renolds) Renolds Group, Jodrell Laboratory, Kew Gardens, London, Great Britain. Biochemical and ultrastructural studies of the control of seed germination through temperature Ministry of Agricuculture studentship "Biophysical basis of temperature regulation of seed germination"</p>

ACADEMIC QUALIFICATIONS

<p>10.02.1998 Free University of Berlin</p> <p style="text-align: center;">Dissertation</p>	<p><i>Habilitation</i> in Plant Physiology Institute for Plant Physiology and Microbiology, Free University, Königin-Luise-Str. 12-16, D14195 Berlin, Germany <i>"Molekulare und physiologische Ansätze zum Phytochromsystem"</i> ("Molecular and physiological approaches to the phytochrome system")</p>
<p>11.12.1983 University of Nottingham PhD thesis</p>	<p>Ph.D. in Plant Physiology Department of Plant Physiology, Sutton Bonington, Loughborough, G.B. "Natural daylight and the simulation of its effects upon stomata"</p>
<p>08.1978 University of London Bachelor thesis</p>	<p>B.Sc. (Hons.) in Botany and Zoology Royal Holloway College, Egham, G.B. "Biochemical and ultrastructural studies of temperature-controlled germination"</p>

LANGUAGES

<p>Mother tongue</p>	<p>English</p>
<p>Other languages</p>	<p>German: fluent French: basic</p>

PEER REVIEW

Funding agencies	National Science Foundation, USA
Journals	European Biophysics Journal FEBS Journal (European Journal of Biochemistry) FEBS Letters Global Change Biology Journal of the American Chemical Society (JACS) Journal of Biological Chemistry Journal of Experimental Botany Journal of Plant Physiology Molecular and General Genetics Molecular Microbiology <i>Naturwissenschaften</i> The EMBO Journal The Plant Cell Photochemistry & Photobiology Photochemical & Photobiological Sciences Plant & Cell Physiology Plant, Cell & Environment Plant Physiology Proceedings of the National Academy of Sciences USA <i>Zeitschrift für Naturforschung</i>

FUNDING

2008-2009	DFG Hu702/7 (with Sineshchekov, LSU Moscow)	€30000
2007-2010	DFG Hu702/6 (with Essen, Uni Marburg)	€360000
2006-2009	DFG Hu702/5	€320000
2003-2009	VWS I/79 977/Hu	€420000
2000-2004	DFG Hu702/2	€170000
1999-2003	SFB 498/B2 (with Lamparter & Krauss, FU Berlin)	€260000
1996-1998	DFG Hu702/1	€180000
Total		€1740000

INVITED TALKS (SINCE 2003)

07.2008	Carnegie Institution, Stanford, USA
06.2008	"Dynamics of Photoreceptors", American Photobiology Society, Burlingame, USA
06.2008	"Light energy conversion", Russian Academy of Sciences, Pushchino, Russia.
06.2008	"International Plant Photobiology Meeting", University of Missouri, USA.
06.2008	Washington University, St. Louis, USA.
02.2008	"Photochemical control of biological signaling", University of Marburg, Germany.
01.2008	"Plant signalling in time and space", University of Frankfurt, Germany
10.2007	"Light-induced Dynamics of Proteins", Freising, Germany.
09.2007	University of Leiden, NL.
06.2006	"Moss 2006", Berkeley, USA.
04.2006	"International Plant Photoreceptor Meeting, Paris, France.
12.2005	"Photoactive biomolecular systems", University of Giessen, Germany.
07.2005	"Tetrapyrroles in Biology", Lucerne, Switzerland.
04.2005	"Control of phytochrome function through light-induced conformation changes: a study using solid-state NMR" inaugural meeting, Mülheim, Germany.
04.2005	University of Marburg, Germany.
06.2004	"Light sensing and signal transduction in plant photomorphogenesis", Okazaki, Japan.
06.2004	"International Photobiology Congress", Jeju, S. Korea.
12.2003	Ruhr-Universität Bochum, Germany.
09.2003	"Spektroskopie an Photorezeptoren", DFG-Rundgespräch, Chiemsee, Germany.
09.2003	"International Plant Photoreceptor Meeting", University of Marburg, Germany.

REFERENCES

Prof. Dr. Wolfram Saenger	Institut für Kristallographie Freie Universität Berlin Takustr. 6 D-14195 Berlin, Germany Tel.: +49 30 838 53410 Fax.: +49 30 838 56702 saenger@chemie.fu-berlin.de
Prof. Winslow Briggs	Emeritus Director Carnegie Institution Plant Biology Laboratory 260 Panama St. Stanford, California 94305, U.S.A. Tel.: +1 650 325 1521 Fax: +1 650 325 6857 briggs@andrew.stanford.edu
Prof. Dr. Alfred Pingoud	Institut für Biochemie Justus-Liebig-Universität Giessen Heinrich-Buff-Ring 58-62 D-35392 Giessen, Germany Tel.: +49 641 99 35400 Fax: +49 641 99 35409 alfred.m.pingoud@chemie.bio.uni-giessen.de

APPENDICES

Research summary
Publication list