



## **CURRICULUM VITAE**

### **Robert Huber**

Born: February 20, 1937 in München

Grammar school and humanistisches Gymnasium in München

Robert Huber was born in 1937 in Munich. He studied chemistry at the Technische Universität München (TUM), where he also completed his Ph.D. and habilitation. Since 1972, he has been a member of the Max-Planck-Gesellschaft and Director at the Max-Planck-Institut für Biochemie until his retirement in 2005. Since 1976, he also serves at the TUM as a Professor. He holds appointments as Guest Professor at the Universität Duisburg-Essen (Germany), the Cardiff University (Great Britain), the Universidad Autonoma de Barcelona (Spain), and the Seoul National University (Korea). He serves as a member of the Board and/or Scientific Advisory Board of a number of pharmaceutical and crop science companies, and he is co-founder of two companies, Proteros and Supremol, located in Martinsried and offering services for drug discovery and development and for the development of novel therapies for autoimmune diseases, respectively. Huber has made major contributions to the understanding of the structure and function of biological macromolecules. He has studied proteases and their natural and synthetic inhibitors, metalloenzymes (iron, nickel, molybdenum, copper), proteins of the immune system (antibodies and antibody receptors), protein hormones and their receptors, protein kinases, enzymes of amino acid biosynthesis, enzymes of cofactor and vitamin biosynthesis and proteins of energy and electron transfer. In addition, he has contributed to the development of instruments for data collection and to methods in protein crystallography, particularly Patterson methods, graphic methods, and refinement, to the use of electron rich metal clusters, and most recently to the methods

and instruments for crystal improvement. He has been honoured by numerous honorary doctorates, professorships, memberships in learned societies and awards, including the Otto-Warburg Medal, the Emil von Behring Medal, the Sir Hans Krebs Medal, the The Linus Pauling Medal, Max Tishler Prize and, in 1988, the Nobel Prize for Chemistry together with H. Michel and J. Deisenhofer.

**Professional education and positions:**

- Diploma in Chemistry, Technische Universität München, (1960);
- Dr. rer. nat., Technische Universität München, (1963);
- Habilitation, Technische Universität München, (1968);
- Scientific Member of the Max-Planck-Gesellschaft and Director at the Max-Planck-Institut für Biochemie, (1972-2005);
- Director Emeritus (2005);
- Apl. Professor, Technische Universität München, (1976);
- Visiting Professor Universitat Autònoma de Barcelona (2001);
- Visiting Professor National University of Singapore (2005);
- Gastprofessor Universität Duisburg-Essen (2005);
- Visiting Professor Cardiff University (2007);
- Visiting Professor KGIT, Korean German Institute of Technology, Seoul, Korea (2007);
- Editor: Journal of Molecular Biology.

**Societies:**

- Member of the Deutsche Chemische Gesellschaft;
- Member of the Gesellschaft für Biologische Chemie;
- Honorary Member of the American Society of Biological Chemists;
- Honorary Member of the Swedish Society for Biophysics;
- Member of EMBO;
- Honorary Member of the Japanese Biochemical Society;
- Member of the Bayerische Akademie der Wissenschaften;
- Member of the Deutsche Akademie der Naturforscher, Leopoldina;
- Member of the European Academy of Arts, Sciences and Humanities;
- Corresponding Member of the Croatian Academy of Sciences and Arts;
- Member of the Accademia Nazionale dei Lincei, Rome;
- Member of the 'Orden Pour le Mérite für Wissenschaften und Künste';
- Associate Fellow, Third World Academy of Sciences, Trieste;
- Foreign Associate, National Academy of Sciences, USA;

Fellow, American Academy of Microbiology;  
Fellow of the Royal Society, London;  
Honorary Member of the Sociedad Espanola de Bioquimica y Biologia Molecular.

**Honors:**

E.K.-Frey Medal, Gesellschaft für Chirurgie, (1972);  
Otto-Warburg Medal, Gesellschaft für Biologische Chemie, (1977);  
Emil von Behring Medal, Universität Marburg, (1982);  
Keilin Medal, Biochemical Society, London, (1987);  
Richard-Kuhn Medal, Gesellschaft Deutscher Chemiker,(1987);  
Dr. h.c. Université Catholique de Louvain, (1987);  
Nobel Prize in Chemistry, (1988);  
E.K.Frey - E. Werle Gedächtnismedaille, (1989);  
Dr. h.c. University of Ljubljana, Slovenia (1989);  
Kone Award, Association of Clinical Biochemists, United Kingdom, (1990);  
Dr. h.c. for Medicine and Surgery, Università Tor Vergata, Rome, Italy, (1991);  
Rudi Lemberg Travelling Fellowship (1991);  
Sir Hans Krebs Medal, Federation of European Biochemical Societies, (1992);  
Bayerischer Maximiliansorden für Wissenschaft und Kunst (1993);  
The Linus Pauling Medal (1993/94);  
Miami Winter Symposia, The Distinguished Service Award (1995);  
Max Tishler Prize, Harvard University, USA (1997);  
Max-Bergmann-Medaille des Max-Bergmann-Kreises zur Förderung der  
peptidchemischen Forschung, (1997);  
Das Grosse Verdienstkreuz mit Stern und Schulterband der Bundesrepublik Deutschland,  
(1997);  
Dr. h.c. Universidade Nova de Lisboa, Portugal (2000);  
Dr. h.c. Universitat Autònoma de Barcelona, Spanien (2000);  
Honorary Professor, Ocean University, Qingdao, China (2002);  
Dr. h.c. Tsinghua University, Peking, (2003);  
Honorary Professor, Peking University, Peking (2003);  
Honorary Professor, Sichuan University, Chengdu (2003);  
Honorary Professor, Shanghai Second Medical University, Shanghai (2004);  
Röntgenplakette der Stadt Remscheid-Lennep, (2004);  
Premio Città di Firenze sulle Scienze Molecolari, Florenz (2004);  
Honorary Professor, Shanghai Jiao Tong University, China (2005);  
'Lotte Distinguished Professorship', Seoul National University, Korea (2005);  
Profesor Honorario de la Universidad de Sevilla (2006);

Dr. h.c. Nagoya University, Japan (2008).

**Professional interests:**

Structure and function of biological macromolecules, in particular those of large complex aggregates.

Systems studied:

Proteases and their natural and synthetic inhibitors;

metalloenzymes (iron, nickel, molybdenum, copper);

proteins of the immune system (antibodies and antibody receptors);

protein hormones and their receptors; protein kinases;

proteins of amino acid biosynthesis (PLP containing enzymes);

proteins of cofactor and vitamin biosynthesis; proteins of energy and electron transport.

Methods development:

Patterson methods in crystallography;

methods of structure determination of proteins and protein ligand complexes by NMR;

synthesis and use of electron rich metal clusters;

crystal annealing and improvement, methods and instruments;

analysis and evaluation of targets for research and application in pharmacology and crop science.

Co-founder and advisor of two Biotech Companies, Proteros (since 1997) and SuppreMol (since 2005).

Scientific advisor of International Pharma and Crop Science Companies.

The list of publications can be found in the Web : <http://www.biochem.mpg.de/xray/>

Prof. Robert Huber 為結構生物學一代宗師，亦榮獲 1988 年諾貝爾化學獎。目前擔任德國 Max-Planck-Institute for Biochemistry 名譽所長及各國多所重點大學之講座教授，並已慨然應允接受本校特聘研究講座之邀請，未來將持續定期前來指導本校膜蛋白結構之研究。

Prof. Huber 於 1937 年出生於德國慕尼黑。他於慕尼黑科技大學 (Technische Universität München) 研修化學，並獲得博士學位及進行博士後研究。1972 年起加入 Max-Planck-Gesellschaft 的研究團隊，並擔任 Director at the Max-Planck-Institute for Biochemistry 直到他 2005 年退休成為名譽所長為止。自 1976 年起他在慕尼黑科技大學擔任教授，目前還擔任 Universität Duisburg-Essen (Germany), the Cardiff University (UK), Universidad Autonoma de Barcelona (Spain), 以及漢城國立大學 (South Korea) 各大學的

特聘講座教授。Prof. Huber 同時也是許多藥廠與農企業的顧問與科學顧問；德國 Martinsried (即 MPI Biochem. 之所在) 的兩家從事藥物研發及發展自體免疫疾病新治療方法的公司 (Proteros; Supremol) 之共同創辦人。當然，Prof. Huber 對世人的主要貢獻與成就在於闡明生物巨分子的結構與功能。他的研究題目囊括多種生物巨分子結構：proteases 與其天然或合成之抑制劑；metalloenzymes (iron, nickel, molybdenum, copper)；免疫系統蛋白 (antibodies and antibody receptors)；賀爾蒙與其受器；protein kinases；胺基酸合成酵素；cofactors for vitamin biosynthesis 以及 proteins of energy and electron transfer。再者，他參與研發蛋白質結晶學收集數據的機器與方法，特別是 goniometer, patterson methods, graphics methods, refinements for electron rich metal clusters，甚至包括了新近改善結晶品質的方法與儀器。他獲頒許多榮譽博士、榮譽教授、榮譽講座，並且得到許多學術界的重要獎項，包含：Otto-Warburg Medal, the Emil von Behring Medal, the Sir Hans Krebs Medal, the Linus Pauling Medal, Max Tischler Prize，並於 1988 年與 Prof. Johann Deisenhofer (亦擔任本校特聘研究講座) 以及 Prof. Hartmut Michel 共同獲得諾貝爾化學獎。