

Curriculum Vitae

FRIEDRICH SPENER

Present Position and Address

2005-present

Professor em.
Department of Molecular Biosciences
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Biographical Born September 10, 1939 in Berlin, Germany; German and Austrian citizen, married, three children.

Education

1945-1949 Elementary School, Graz, Austria
1949-1957 Realgymnasium, Graz, Austria
1957-1958 Military Service in Austrian Army, Pioneer Corps
1958-1965 Chemistry at Universities of Graz, Austria and Marburg/Lahn, Germany
1965-1967 Doctoral Thesis at Dep. of Physiol. Chemistry, University of Graz, Austria
1968 *Ph. D.* (Chemistry)

Professional Employment

1968-1970 University of Minnesota, Hormel Institute, Austin MN, USA
Postdoctoral Research Fellow
1970-1974 Federal Center for Lipid Research, Münster, Germany
Section Leader
1974-2004 Department of Biochemistry, University of Münster, Germany
1976 *Dozent* (Biochemistry)
1982 *Professor of Biochemistry, Head of Applied Biochemistry*
1985-1986 *Dean of the Faculty of Chemistry and Pharmacy*
2004 Retired from University of Münster

1991-1997 Institute of Chemical and Biochemical Sensor Research, Münster
Director of Division of Biotechnology and Biomedical Technology
1996-2004 Spener & Spener Consulting GbR, together with son Arno Spener, MBA
2005-present Dept. of Biochemistry and Molecular Biology, Medical University of Graz
Permanent Visiting Professor

Scholarships, Honours

Senior Fellow of the Japan Society for the Promotion of Science (1995)
Chevreul Medal of Association Française pour l'Etudes des Corps Gras (2000)
Gold Medal for Invention at 50th EUREKA in Brussels (2001)
Honorary Member of Hungarian Academy of Sciences (2004)
Docteur h.c. of Institut National des Sciences Appliquées de Lyon (2004)
Vítěslav Veselý Medal of Czech Chemical Society (2005)
Normann Medal of Deutsche Gesellschaft für Fettwissenschaft (2005)
Honorary Member of Deutsche Gesellschaft für Fettwissenschaft (2009)
Fellow of the Eur. Federation for the Science and Technology of Lipids (2011)
Eur. Lipid Science Award of Eur. Federation for the Science and Technology of Lipids (2017)

Guest-Professor at University of Calcutta, India (1983), University of Minnesota, Austin MN, USA (1984), Université Pierre et Marie Curie, Paris, France (1986), University of Campinas, Brasil (1989),

Albert Einstein College of Medicine, New York, USA (1994), Graz University of Technology, Austria (1996,1998).

Editorial Activities

Editor-in-Chief of Eur. J. Sci. Technol. Lipids 1999-2007, thereafter *Honorary Editor*

Executive Editor of Biochim. Biophys. Acta, Section Molecular and Cell Biology of Lipids 2001-2009

Editorial Advisor for Biochem. Journal 1999-2016

Editor (with A.K. Duttaroy) of book "Cellular Proteins and their Fatty Acids", Wiley-VCH, Weinheim (2003)

Professional Service

Conférences Jaques Monod, *Vice-President* of conference in Roscoff (1991) and *President* of conference in Aussoi (1993)

International Conferences on the Bioscience of Lipids (ICBL) *President* 1998-2005

European Federation for the Science and Technology of Lipids (Euro Fed Lipid) *Founding Member* and *Vice-President* 2000-2005

Deutsche Gesellschaft für Fettwissenschaft *Vice-President* 1995-1997, *President* 1998-2000

International Society for Fat Research (ISF) *Vice-President* 1998-1999, *President* 2000-2001

BioGenTech Northrhine-Westfalia, *Advisory Board Member* 1995-2003

DECHEMA Panel "Biological Material Production", *Member* 1993-2005

Eur. Fed. of Biotechnology, Section "Applied Biocatalysis", *German Delegate* 1993-2003

German-Russian Network "Analytical Biotechnology", *German Coordinator* 1993-1998

German-Japanese Panel on "Enzyme Technology", *Member* 1987-2004

IUPAC Task-Group "Postgenomic Chemistry", *Member* 2001- 2005

International Lipid Classification and Nomenclature Committee, *Member* 2005 - present

LIPID MAPS Advisory Board, *Member* 2016 - present

He was invited speaker at congresses and special symposia, teacher at summer schools and short courses and served as co-ordinator and member of national and international (EU, Japan, Russia) joint research projects.

Research and Development Interests

The scientific work is published in over 280 original contributions, reviews and book chapters as well as in several patents. He also served as evaluator and author of strategy papers for national and international scientific and public organizations.

Present research interest focuses on understanding lipid droplet metabolism and function by using genetically modified animal models and omics approaches, including lipidomics.

Main lines of **past research interests** have been:

Regulation of genes by lipids: The research group had a strong and broad history in mammalian lipid research and made decisive contributions to the functional understanding of the intracellular fatty acid binding proteins, fatty acid transport and signalling to lipid-activated nuclear receptors. In the plant field the group progressed from work on biosynthesis of cyclopentenyl fatty acid to elucidation of biosynthetic paths of medium-chain fatty acids and their expression in rape seeds.

Enzyme technology and analytical biotechnology: Gene and protein technology was used to understand reaction mechanisms and to optimize enzyme performance (lipases, phosphatases, peroxidases). This was followed by application of enzymes and antibodies in biosensors in macro-tool and microsystems format.

The research and development activities are financed mainly by grants from Deutsche Forschungsgemeinschaft, German Federal Ministry of Research and Technology, European Union, Foundations and by industrial contractors.

Hobbies Music, mountaineering