

Curriculum Vitae

Dieter Oesterhelt, Max Planck Institute of Biochemistry, 82152 Martinsried, Germany

Born: November 10, 1940 in Munich (Germany)
married, three children



Education:

- 1950 - 1959 Theresiengymnasium, Munich
- 1959 - 1965 University of Munich, Faculty of Sciences (Chemistry). Diploma 1965
- 1965 - 1967 Ph.D. work, Institute of Biochemistry, University of Munich (supervisor: F. Lynen). Thesis: "Zur Kenntnis der Fettsäuresynthetase aus Hefe" – Engl. The multienzyme complex of fatty acid synthase from yeast
- 1967 Ph.D. in biochemistry (physics, genetics)
- 1973 Venia legendi for biochemistry (habilitation)

Professional Experience:

- 1967 - 1969 Research Assistant, Max Planck Institute of Cell Chemistry, Munich
Work on fatty acid synthase
- 1969 - 1970 Sabbatical year at the University of California, San Francisco
Discovery of vitamin A aldehyde and a rhodopsin-like protein (bacteriorhodopsin) in the cell membrane of *Halobacterium halobium*
- 1969 - 1973 Lecturer, University of Munich. Work on the structure, function and biosynthesis of the purple membrane of halobacteria
- 1972 Proposition of bacteriorhodopsin as a light-driven proton pump
- 1973 - 1975 Head of a research group at the Friedrich Miescher Laboratorium of the Max Planck Society, Tübingen
- 1975 - 1979 Professor of Biochemistry, University of Würzburg
- Since 1979 Honorary Professor at the Faculty of Chemistry and Pharmacy at the LMU, Munich
- Since 1979 Scientific Member of the Max-Planck-Gesellschaft
- 1979 - 2010 Director at the Max Planck Institute of Biochemistry, Martinsried
- 2011 - 2014 Head of an emeritus research group at the Max Planck Institute of Biochemistry, Martinsried

Research Interests:

Biochemistry, bioenergetics and molecular biology of photoreceptors, membranes and enzymes, signal transduction in archaea, genomics, proteomics and systems biology of halophilic organisms

Memberships and activities in numerous National and International Science Organizations and Appointment Commissions

Editorial Board Member:

European Journal of Biochemistry (1976 - 1981)
EMBO Journal (1981 - 1985)
Biological Chemistry, Hoppe-Seyler (1976 - 1986)
The Biochemical Journal (1980 - 1982)
Angewandte Chemie (1988 - 1992)
Chemistry - a European Journal (1994 - 2005)
ChemBiochem (1999 - 2004)
Journal of the Royal Society Interface (2006 - 2007)

Relations to Industry:

Member of the advisory board Definiens (2002 - 2005)
Scientific advisor and member of the supervisory board bitop AG (since 2006)
Co-founder, member and scientific advisor Actilor GmbH (2007 - 2018)

Honours (selected):

1982 Feldberg Award
1983 Liebig Denkmünze (award of the German Chemical Society)
1989 Dannie Heineman Award of the Academy of Sciences at Göttingen
1989 Member of the "Deutsche Akademie der Naturforscher Leopoldina in Halle"
1990 Member of the Bavarian Academy of Sciences
1990 Karl Heinz Beckurts Award
1991 Otto-Warburg-Medaille, awarded by the German Biochemical Society
1993 Mendel-Medaille, awarded by the Academy of Sciences "Leopoldina"
1998 Alfried Krupp Award for sciences
1998 Otto-Hahn-Prize for Chemistry and Physics
1999 Werner von Siemens Ring
2004 German Federal Cross of Merit, 1st class.
2010 Peter Mitchell Medal
2011 Science award of the Association for the Promotion of Science and Humanities in Germany
2016 Bavarian Maximilians order for Science and Arts
2021 Albert Lasker Basic Medical Research Award

Scientific publications:

More than 480 articles in international journals and numerous contributions to monographs and periodicals in the following fields: Retinal proteins as light transducers and light sensors; structure-function relationship in reaction centers of photosynthetic bacteria; structural dynamics of light transducing membrane proteins; crystallization of membrane proteins; function of phytochrome; enzyme mechanisms (Cl⁻ pump of *Acetabularia*, Na⁺ pump of *Klebsiella*, oxidoreductases and ferredoxin of *Halobacteria*). Signal transduction networks in haloarchaea; systems biology of halophilic archaea (qualitative and quantitative proteomics, transcriptomics, genomics, bioinformatics).