

Speaker biography

Ada Yonath is the Martin S. and Helen Kimmel Professor of Structural Biology and Director of the Helen and Milton A. Kimmelman Center for Biomolecular Structure and Assembly at the Weizmann Institute of Science in Israel. Her work focuses on ribosomes, the universal cellular “factories” translating the genetic code into proteins. Natural antibiotics are the weapons produced by microorganisms against other bacteria that invade their environment and threaten their resources. Most of the antibiotics found in nature as well as the natural antibiotics modified by companies target ribosomes due to the significance of protein biosynthesis for the processes of life. Dr. Yonath is investigating the action of ribosomes, as well as the mechanisms that bacteria use to acquire resistance to antibiotics. This approach reveals novel routes for structure-based drug improvements and design.



Dr. Yonath was born in Jerusalem. She studied at the Hebrew University of Jerusalem, received a Ph.D. degree from the Weizmann Institute of Science, and completed her postdoctoral studies at Carnegie Mellon University and at MIT in the United States. In the beginning of the nineteen seventies she established the first laboratory for protein crystallography in Israel, which was the only laboratory of its kind in the country for almost a decade, and subsequently spent a sabbatical leave at the University of Chicago. From 1986-2004 she directed the Max-Planck-Research-Unit for Ribosome Structure in Hamburg, Germany, and continued, in parallel, her activities at the Weizmann Institute.

She is a member of the United States National Academy of Sciences; the American Academy of Arts & Sciences; the Israel Academy of Sciences and Humanities; the European Molecular Biology Organization (EMBO); the European Academy of Sciences and Art; the German Academy of Sciences (Leopoldina); the Korean Academy for Science and Technology; and the International Academy of Astronautics.

Dr. Yonath holds honorary doctorates from almost all Israeli Universities; KEK, Japan; University of Oslo, Norway; Fujian University, China; New York University and Mount Sinai Universities, New York; University of Hamburg, Germany; University of Patras, Greece; the University of Oxford and the University of Cambridge, United Kingdom.

Her awards include the First European Crystallography Prize; the Israel Prize; the Paul Karrer Gold Medal; the Israel EMET Prize; the Rothschild Prize; the Louisa Gross Horwitz Prize of Columbia University, NY; the Paul Ehrlich and Ludwig Darmstaedter Prize; the Linus Pauling Medal Award; the Christian B. Anfinsen Award; the Wolf Prize; the Massry Prize; the UNESCO/L’Oreal Award for Women in Science; the Albert Einstein World Award of Science; the Erice Peace Prize; the DESY pin; the Wilhelm Exner Medal; the Prime Minister of India Gold Medal; the President of Panama Award; the Maria Sklodowska-Curie Medal of the Polish Chemical Society; the City of Florence Prize; the Datta Medal of the Federation of European Biochemical Societies; the Nobel Prize in Chemistry.

