#### **Programme Schedule**

**University Song** Lighting of Lamp

Introduction of the Guest-Prof. Ada Yonath

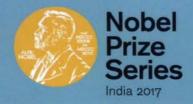
Floral welcome and Honoring of the Guest by the Honorable Vice-Chancellor

Address by the Honorable Vice-Chancellor

Address by the Laura Sprechmann Deputy CEO, Nobel Media

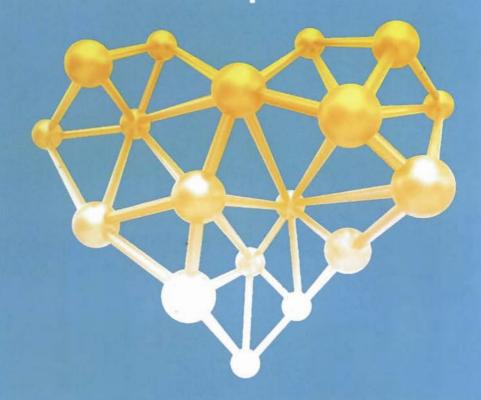
Lecture by the Nobel Laureate "Towards a new generation of Antibiotics"

Vote of Thanks





### **Science Impacts Lives**



#### Produced by Nobel Media and Nobel Museum













#### **GUJARAT UNIVERSITY Welcomes**

#### Ada Yonath, Nobel Laureate

Nobel Prize in Chemistry 2009 "Towards a new generation of antibiotics" Hall: Gujarat University Convention Centre

Near Helmet Circle, Ahmedabad 380 009



#### Ada Yonath: A short biographical sketch

Ada Yonath focuses on protein biosynthesis and antibiotics paralyzing it. She graduated the Hebrew University, earned Ph.D. and from Weizmann Institute and completed postdoctoral studies at Mellon-Institute and MIT, USA. In the seventies she established the first structural-biology laboratory in Israel.



Currently she is the Director of KimmelmanCenter for Biomolecular Structure at Weizmann Inst. Previously she also headed the Max-Planck-Research-Unit for Ribosome Structure in Hamburg. Among others, she is a member of US-National-Academy-of-Sciences; Israel Academy of Sciences and Humanities and the PontificiaAccademiadelleScienze (Vatican). She holds honorary doctorates from over 20 universities and her awards include the Israel Prize; Linus Pauling Gold Medal; Wolf Prize; Albert-Einstein World Award for Excellence: Erice Peace Prize: Nobel Prize for Chemistry.

## "Towards a new generation of antibiotics"

# Ada Yonath Department of Structural Biology, Weizmann Institute, Rehovot 76100, Israel

Resistance to antibiotics and the spread of antibiotics' metabolites in the environment are severe problems in contemporary medicine. Ribosomes, the cellular organelles for the translation of the genetic code into proteins are a major target for antibiotics. Structures of complexes of eubacterial-ribosomes with antibiotics paralyzing them illuminated common pathways in the modes of antibiotics inhibitions, synergism, differentiation and resistance. Additionally, recent structures of ribosome from a multi-resistant pathogenic bacterium identified features that can account for species-specific diversity in infectious-diseases susceptibility. Careful analysis and comparisons to ribosomes from penign bacteria identified unique structural features that may lead to the design of environmental-friendly species-specific degradable antibiotics, thus protecting the environment alongside preserving the microbiome.