

In memory of our founder

Dr. Kallam Anji Reddy

Science

Society

Sustainability

Join us as we remember the visionary scientist, entrepreneur and philanthropist, **Dr. Kallam Anji Reddy**

15th March, 2023

Program

9:30 AM Lamp Lighting 9:35 AM Welcome Address by G V Prasad MD & Co-Chairman of Dr. Reddy's Laboratories 9:45 AM Remembering Dr. K. Anji Reddy Keynote Address by 9:50 AM Dr. K. VijayRaghavan Former Principal Scientific Advisor, Government of India 10:10 AM Dr. Kallam Anji Reddy Memorial Lecture by Professor Ada E. Yonath Nobel Laureate. Weizmann Institute, Israel 11:00 AM Dr. Swami Subramaniam CEO, Ignite Life Science Foundation **Concluding Remarks** 11:20 AM by Satish Reddy Chairman of Dr. Reddy's Laboratories

Dr. Kallam Anji Reddy Memorial Lecture



Professor Ada E. Yonath (Nobel Laureate in Chemistry, 2009) Department of Structural Biology, Weizmann Institute, Israel

From origin of life to next generation RNA-based therapeutics

The site for peptide bond formation in the ribosomes, the Peptidyl Transferase Center (PTC), is located within a highly conserved internal pocket made exclusively of rRNA. The high conservation implies its existence irrespective of environmental conditions and indicates that it may represent a prebiotic RNA machine, which could be the kernel around which life originated. Lab constructs imitating this pocket possess capabilities for peptide bond formations, thus indicating that a molecular prebiotic bonding entity still exists and functions within ribosomes of all living cells.

In contrast, other ribosomal components undergo genetic variability that led to the creation of specific structural features. Among them, those related to ribosomal genetic diseases, or specific to antibiotic-resistant pathogens, are being used as the basis for design of RNA-based next generation therapeutics.