

BOSE INSTITUTE

101st

Foundation Day Celebration

30th November, 2017

PROGRAMME

Venue : Main Campus, 93/1, A. P. C. Road, Kolkata-700 009

09:30	Garlanding the busts of Acharya J.C. Bose at Centenary Campus, Salt Lake Campus, Madhyamgram Campus and Darjeeling Campus
10:15	Floral offerings at the Samadhi, Main Campus
10:20	Plantation
10:25	Offering flower to Dr. S. N. De's Bust
10:30	Offering flower to JC Bose's Bust and Lighting the Lamp
10:30 - 10:40	Museum visit
10:40	Invocation followed by Reception of the Chairman and Speaker of the 79th Acharya JC Bose Memorial Lecture Speaker : Prof. Ada Yonath (Nobel Laureate). Weizmann Institute of Science, Israel Chairman : Prof. Bikash Sinha
10:45	Director's Report
10:55	Introduction of Prof. Ada Yonath by Prof. Bikash Sinha
11:00	79th Acharya JC Bose Memorial Lecture by Prof. Ada Yonath Topic : Next Generation Environmental Friendly Antibiotics
12:00 noon	Felicitation of Prof. Ada Yonath
12:05	Distribution of Sir Nil Ratan Sircar Prize and Prof. B. B. Biswas Outstanding Student Award
12:10	Books Release
12:25	National Anthem
12:45	Lunch
02:45 - 04:45	Cultural Program

Past Lecturers

Rabindra Nath Tagore	: 1938	Prof. S.K. Mukherjee	: 1979
Prof. M.N. Saha	: 1939	Prof. Niharranjan Ray	: 1980
Prof. S. S. Bhatnagar	: 1940	Prof. Sukumar Sen	: 1981
Dr. J. C. Ghosh	: 1941	Prof. B.K. Bachhawat	: 1982
Sir Cyril S. Fox	: 1943	Swami Lokeshwarananda	: 1983
Dr. K.P. Biswas	: 1944	Prof. N.S. Subbarao	: 1984
Dr. P. Jarija	: 1945	Prof. R.C. Majumder	: 1985
Dr. S.K. Mitra	: 1946	Prof. C.N.R. Rao	: 1986
Dr. J. N. Mukherjee	: 1947	Prof. S. Chandrasekher	: 1987
Prof. K.N. Bhal	: 1948	Dr. A.P. Mitra	: 1988
Dr. K.C. Mehta	: 1949	Prof. O. Siddiqi	: 1989
Dr. S.K. Banerji	: 1950	Dr. S. R. Ramachandran	: 1990
Dr. P.C. Mahalanobis	: 1951	Prof. P.N. Tandon	: 1991
Prof. R.C. Majumder	: 1952	Prof. H. Sarat Chandra	: 1992
Dr. N.K. Bose	: 1953	Dr. U.R. Rao	: 1993
Prof. S.N. Bose	: 1954	Dr. S.Z. Qasim	: 1994
Dr. S.I. Hora	: 1955	Dr. P.K. Iyenger	: 1995
Dr. A.C. Ukil	: 1956	Dr. G. Padmanaban	: 1996
Dr. D.N. Wadia	: 1957	Prof. V. Ramalingaswami	: 1997
Dr. S. Radhakrishnan	: 1958	Prof. N.K. Ganguly	: 1998
Sir Jehangir Gandhi	: 1959	Dr. R.A. Mashelkar	: 1999
Dr. V.R. Khanolkar	: 1960	Prof. P. Balaram	: 2000
Dr. B.C. Guha	: 1961	Prof. Ramanath Kowsik	: 2001
Dr. D.N. Ramachandran	: 1962	Dr. Pushpa M. Bhargava	: 2002
Dr. S. Bhagavantan	: 1963	Prof. M. S. Valiathan	: 2003
Shri Asoke Mehta	: 1964	Prof. Asok Sen	: 2004
Prof. P. Maheshwari	: 1965	Prof. Rajesh Kochhar	: 2005
Dr. Atma Ram	: 1966	Prof. V. S. Ramamurthy	: 2006
Acamedician A.I. Oparin	: 1967	Swami Jitatananda	: 2007
Dr. B.D. Nag Chowdhuri	: 1968	Prof. F. P. Marconi	: 2008
Dr. Homi N. Seethna	: 1969	Prof. J. N. Mohanty	: 2009
Dr. P.R. Ray	: 1970	Prof. André Bêteille	: 2010
Dr. N.K. Bose	: 1971	Swami Atmapriyananda	: 2011
Prof. S. Swaminathan	: 1972	Shri Gopal Krishna Gandhi	: 2012
Dr. A. Srinivasan	: 1973	Professor Mushirul Hasan	: 2013
Dr. A. Ramachandran	: 1974	Dr. Srikumar Banerjee	: 2014
Dr. B. Mukherjee	: 1975	Dr. T. Ramasami	: 2015
Prof. G.P. Talwar	: 1976	Prof. Raghavendra Gadagkar	: 2016
Dr. Raja Ramanna	: 1977		
Prof. (Mrs.) A. Chatterjee	: 1978		

30TH NOVEMBER 2017

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79th

Acharya Jagadis Chandra Bose Memorial Lecture



BOSE INSTITUTE
KOLKATA

Next Generation Environmental Friendly Antibiotics

Prof. Ada Yonath

Department of Structural Biology,
Weizmann Institute, Rehovot 76100, Israel

| Abstract |

Resistance to antibiotics is a severe problem in contemporary medicine. Many antibiotics inhibit protein biosynthesis by hampering the ribosome function. Structures of bacterial ribosomes in complex with these antibiotics illuminated common pathways of antibiotics inhibitory action, namely binding to the ribosomal binding sites, but could not illuminate the species-specific diversity in infectious-diseases susceptibility. Recent structural studies on ribosome from a multi-resistant pathogenic bacteria and careful comparisons to previous ribosomes structures revealed novel structural motifs, essential for protein biosynthesis but are not located in the primary ribosomal active sites, hence no mechanism for their modification, which may lead to resistance are currently known, hence if at all, resistance will appear slowly and less efficiently. These findings prompted the design of antibiotics with desired structures that can be optimized in terms of their chemical properties, toxicity, cellular penetration, and species-specificity, thus preserving the microbiome, as well as increasing their bio degradability, thus reducing the ecological hazards caused by the non-digestible components of the current antibiotics metabolites.



BOSE INSTITUTE
K O L K A T A

Director
and

Members of Staff of Bose Institute
request the pleasure of your company at the

101st Foundation Day Celebration

and

79th Acharya Jagadis Chandra Bose Memorial Lecture

by

Prof. Ada Yonath

Department of Structural Biology,
Weizmann Institute, Rehovot 76100, Israel

titled

**Next Generation Environmental
Friendly Antibiotics**

on

30th November, 2017 at 10.15 a.m.

Prof. Bikash Sinha

has kindly consented to preside over the programme.

Venue : **Bose Institute**
Lecture Hall , 93/1, A P C Road
Kolkata 700 009

Prof. Siddhartha Roy
Director (Officiating)

| About the Speaker |



Ada E. Yonath was born in June 22, 1939. She is an Israeli crystallographer best known for her pioneering work on the structure of the ribosome. She is the current director of the Helen and Milton A. Kimmelman Center for Biomolecular Structure and Assembly of the Weizmann Institute of Science. In 2009, she received the Nobel Prize in Chemistry along with Venkatraman Ramakrishnan and Thomas A. Steitz for her studies on the structure and function of the ribosome, becoming the first Israeli woman to win the Nobel Prize out of ten Israeli Nobel laureates, the first woman from the Middle East to win a Nobel prize in the sciences, and the first woman in 45 years to win the Nobel Prize for Chemistry. However, she said herself that there was nothing special about a woman winning the Prize.