

## Obituary

### Dr S Varadarajan



**(March 31, 1928- May 11, 2022)**

Dr S Varadarajan, one of the Founding Fellows and former President of INAE and Formerly Secretary to the Govt of India, Department of Science and Technology and Formerly Director General, CSIR born on March 31, 1928 passed away on May 11, 2022. He was elected to INAE Fellowship in the year 1987 and was affiliated to Engineering Section IV (Chemical Engineering).

In demise of Dr Srinivasan Varadarajan at New Delhi, one of the leading chemists and among architects of Indian science was lost. He obtained his PhD (1952) from University of Delhi, and also from University of Cambridge, UK (1956). His early work was on benzopyrones and rotenoid natural plant products with biological effects. Starting career as Lecturer of Chemistry, Delhi University (1949-53), he availed of Exhibition Overseas Fellow with Sir Alexander Todd (1953-56) at Cambridge; Visiting Lecturer in Biology, Massachusetts Institute of Technology, USA (1956-57), Beit Memorial Fellow in Medical Research in Addenbrooks Hospital, Department of Radiotherapeutics, University of Cambridge (1957-59). He returned to India in 1959 to initiate research in Hindustan Lever of the Unilever International Group with which he remained up to 1974.

Later, he was involved in research leading to the synthesis of nucleosides, nucleotides and to the structure of ribonucleic acid (RNA) phosphate linkage, through first cyclo-nucleoside with DM Brown and with Iodine labelled heavy atom and first application of X-ray crystallography in the Laboratory of Sir Lawrence Bragg. His research at the Biology Department of MIT yielded uniformly <sup>14</sup>C labelled *Thiobacillus denitrificans* and *Escheria coli* deoxynucleotides, converted to triphosphosphates chemically and isolated through first use of lithium bromide, as precursors for biosynthesis of DNA.

During 1975 and 1983, Dr Varadarajan became Chairman of several public sector organisations also. He worked as Secretary to Government of India (1982-88) in the Department of Science and Technology (DST) and was Director General, Council of Scientific Industrial Research (CSIR), and many others. Dr Varadarajan was an efficient manager. He was a Founder Member of the Government Oil Industry Development Board (OIDB) since 1973. He was invited to be Member of Oxford Energy Policy Club, St Anthony's College (1976-83). He has been associated with management of many prestigious institutions like IIM-A; National Council of Applied Economic Research (1976-84), IIT, IISc, Indian Institute of Science, JNU and BHU. He was Trustee of Indira Gandhi National Centre for Arts. He served for 11 years as Chairman of National Commission of Science Museums and assisted in establishment of several Science Museums during 1975-86. He was Member of Public Enterprises Selection Board (1985-88). He was associated with international negotiations for establishment of International Centre for Genetic Engineering and Biotechnology in Delhi and Trieste, and the formation of Indo-French Centre for Advanced Scientific Research in Delhi. Special mention may be made of his work completed on Environmental effects of Refinery on Taj Mahal Monuments (1974-76) and again (1994-95) and on safe disposal of highly toxic stored materials after gas leakage at Bhopal in December 1984.

Dr Varadarajan had been President of INSA (1996-98), Indian Academy of Sciences, Bangalore (1980-82), Indian National Academy of Engineering (1992-95), Nutrition Society of India (1982-86), Oil Technologists Association of India (1984-86) and Treasurer Materials Research Society of India (1990-94). He was Member of International Committee of ICSU on Chemical Research Applied to World Needs (CHEMRAWN); the small India-Japan Eminent Persons Group of Governments and the INSA-Japan Science Advisory Council.

He was also elected Fellow of the all three Science Academy of India; Academy of Sciences for the Developing World (TWAS), and also National Academy of Agricultural Sciences of India, Society of Engineers, All India Management Association, and Jawaharlal Nehru Centre for Advanced Scientific Research. He received CV Raman Medal, INSA Medal for Promotion of Science (2004), and occupied Platinum Jubilee Chair for Promotion and Service to Science (2009-2014). He was conferred the Padma Bhushan from President of India; INAE Lifetime Contribution Award in Engineering in the year 2003 and Life Time Science Award in Petroleum.

May God bless his soul to Rest in Peace