Professor S. C. Bhattacharyya Educationist, Scientist, and Administrator



Professor Sasanka Chandra Bhattacharyya was born on August 31, 1918, at Sylhet, now a part of Bangladesh. His parents were Shri Sirish Chandra and Smt Kadambinidevi. His father and grandfather were eminent scholars of Sanskrit and were well-reputed teachers.

The young Bhattacharyya studied at the Dhaka University and obtained B. Sc. in 1938 and M. Sc. in 1940. He stood first in post-graduate theory examination and worked with the eminent chemist Dr S. S. Guha Sarkar. The research work led to two publications on 'Reagents in inorganic chemistry', which appeared in 1941. He later moved to the Indian Institute of Science (IISc), Bangalore, in 1941 where he registered for Ph. D. Though his first love was inorganic chemistry, under the influ-

ence of Prof. P. C. Guha, he was drawn to the fascinating field of organic chemistry, particularly the chemistry of natural products. He was lucky enough to get a stipend of Rs. 40 p.m. (less than a \$1.00 now). He worked with great zeal, untiring diligence, imagination and skillful experimentation. In a short period of two years, he submitted his thesis to the Dhaka University in 1943 and obtained his Ph. D. in 1944. (The Indian Institute of Science then was not a deemed institution to award degrees.) His pioneering work on sandalwood oil chemistry was carried out during this period.

In 1945, Prof. Bhattacharyya moved to the Cambridge University, UK, to work with Prof. B. Lythgoe, FRS. He carried out research on the chemical constituents of *Centella asiatica*, a plant known for its antileprosy properties, which helped him obtain his second Ph. D. in 1949. The results of this work appeared in Nature. During his stay at Cambridge, he was closely associated with Prof. A. Todd. He then spent a year as a research chemist at Herts Pharmaceuticals, UK (1949-50). On his return to India, he joined the Department of Chemistry, Indian Institute of Science, as a lecturer (1950-51) and moved to Pune in November 1951 to join the National Chemical Laboratory (NCL) as a Senior Scientific Officer. This was the start of his very productive and illustrious research career. Enthused by the quality of his research work, the CSIR (Council of Scientific and Industrial Research), the parent body of NCL, established a new division on essential oils at NCL with him as its Assistant Director. The research group under his able leadership worked untiringly for almost 15 years and gained international recognition for outstanding contribution to natural product chemistry and synthetic work on macrocyclic musk compounds. In 1964, the Cambridge University bestowed on him its coveted D.Sc. degree. In June 1966, he moved to the Indian Institute of Technology (IIT) at Mumbai (Bombay), as a Senior Professor to head the newly established Chemistry Department. His indefatigable quality, human approach, total devotion to teaching and research, and profound support of his wife Geeta helped him establish the department as a leading centre for research on natural products. Prof. Bhattacharyya put educational principles and research work ahead of everything else. I was fortunate to have been his student at NCL and was also lucky to be his colleague at IIT, Mumbai. We observed from close quarters how he moulded young and bright students into dedicated individuals. None of us ever realised that we were part of a revolution he was leading. Dr K. D. Deodhar, one of his students at IIT, Mumbai, and presently a professor there, admires Prof. Bhattacharyya in these words: "Every lecture was like a seminar from a scientist who uncovered the facts, kindled the inquisitiveness and raised us to a level where we could appreciate the great work done by Professor himself as well as others."

Professor Bhattacharyya established close contacts with leading pharmaceutical and perfumery establishments and undertook several sponsored projects which benefited both the academia and the industry.

Professor Bhattacharyya is an able administrator and served as the Deputy Director of IIT, Mumbai, during 1976–1978 with great distinction. After formal retirement from there, he moved to Kolkata (Calcutta) as the Director of Bose Institute which he served during 1978–1984. He was also a visiting Professor and Professor Emeritus at IIT, Mumbai. His long research and teaching career endeared him to generations of students, colleagues and peers from the scientific field. He continues to be an inspiration even today to young organic chemists of India.

Professor Bhattacharyya has received several honors and awards for his outstanding contributions to teaching and research. These include K. G. Naik Gold Medal (M. S. University, Vadodara, 1960); Shanti Swarup Bhatnagar Prize (1962); Acharya P. C. Roy Memorial Lecture and Medal (Indian Chemical Society, 1969); Professor K. Venkatraman Lecture and Award (University of Mumbai, 1970); Acharya J. C. Ghosh Memorial Lecture and Medal (Indian Chemical Society, 1971); Fellow of the Indian Academy of Sciences (1975); Fellow and Vice-President of the Indian National Science Academy (1976); Professor T. R. Seshadri 70th Birthday Commemoration Medal, Indian National Science Academy (INSA), (1976); G. P. Chatterjee Lecture and Award (INSA, 1981); Platinum Jubilee Medal (IISc, Bangalore, 1985); IFEAT Medal (1989). Professor Bhattacharyya has worked on the Editorial Boards of the Indian Journal of Chemistry and the Journal of the Indian Chemical Society. He is Honorary life member of the Fragrance and Flavors Association of India (FAFAI) and Essential Oils Association of India (EOAI). He is also a past President of the latter. He also served as a member and Chairman of the Executive Council, RRL (Regional Research Laboratory), Jammu, and CIMAP (Central Institute of Medicinal and Aromatic Plants), Lucknow. The 11th International Congress on Essential Oils, Fragrances and Flavors in 1989 held at New Delhi felicitated him.

Professor Bhattacharyya has made outstanding contributions to the chemistry of natural products, particularly terpenoids. Over a hundred new natural products, some of them having novel carbon frameworks, were isolated for the first time and their structures were established. His group synthesized several macrocyclic musk compounds, such as muscone, civetone, exaltone, exaltolide, ambrettolide and several others. All the major drugs belonging to visnadin group were synthesized. He has made equally significant contributions to a variety of other areas including inorganic and analytical chemistry. In fact, he has guided several students leading to Ph. D. degrees in inorganic and analytical chemistry. Professor Bhattacharyya has supervised the research work of over 60 Ph. D. students and published 240 original research pa-

pers in journals of international repute. He also has several patents to his credit. He has travelled widely and participated in several national and international conferences covering a span of five decades.

Professor Bhattacharyya followed the Gurukul system in its true sense. Speaking at a felicitation function organised during the 11th Congress on Essential Oils, he eulogized the contribution of his wife, Mrs Geeta Bhattacharyya, to the growth of his research group and called her a leading partner in all his achievements. His students without exception have experienced the human qualities of the Bhattacharyya couple and their family members.

Prof. Bhattacharyya is a true patriot and a philosopher too. In 1962, in response to an appeal by the then Prime Minister of India, Pandit Jawaharlal Nehru, during the Indo—China war, the Bhattacharyya couple donated all their gold ornaments and the gold medals that he had won. Pandit Nehru personally acknowledged their touching gesture.

After the demise of Mrs Bhattacharyya in March 1999, he now lives with his daughter Radha and son-in-law Alok Chattarjee at Dehradun. In addition to his interest in science, Prof. Bhattacharyya has deep knowledge and wonderful appreciation of Bengali and English literature and takes keen interest in sports. He is presently busy writing a book titled *Purano Diner Katha* (The story of olden days). It is apt to sum up this tribute by quoting his favourite message to his students.

"Do all the good you can, To all the people you can, In all the ways you can, As long as you can."

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