

Professor (Mrs.) Asima Chatterjee

A Tribute



During her studies at the University College of Science, Calcutta, she was inspired by the doyens of Indian Science, like Acharya Prafulla Chandra Ray, Professor Prafulla Chandra Mitra, and Professor Jnanendra Nath Mukherjee, who influenced her career as a natural product scientist. She started her research work under the guidance of Professor Prafulla Kumar Bose, one of the pioneer natural product chemists in India. She obtained D.Sc. degree (1944) for her excellent work on naturally occurring indole alkaloids and coumarins. Incidentally, she was the first lady to obtain D.Sc. degree of any University in India.

She married Professor Dr. Baradananda Chatterjee, FNA (since deceased), who was an authority in soil science, and became Mrs. Chatterjee.

Later (1948-49), Dr. (Mrs.) Chatterjee worked with Professor L. Zechmeister at California Institute of Technology, USA, on carotenoids, and (1949-50) with Professor Paul Karner, N.L., at University of Zurich, Switzerland, on alkaloids, which remained her life-long interest.

In 1940, Mrs. Chatterjee joined Lady Brabourne College, Calcutta, as the founder-Head of the Department of Chemistry. In 1944, she was appointed a Honorary Lecturer in Chemistry of the Calcutta University. In 1954, she was appointed Reader in the Department of Pure Chemistry, Calcutta University, and in 1962, became Khaira Professor of Chemistry in the same Department, - a chair she held till 1982. For the past 30 years, since the inception (1972), she has been the Honorary Program Coordinator for Centre for Advanced Studies in Chemistry of Natural Products, Calcutta University.

Prof. (Mrs.) Chatterjee was elected a fellow of the National Institute of Sciences of India (now known as National Science Academy) in 1960. She received the prestigious Shanti Swarup Bhatnagar Award in Chemistry (1961) from CSIR (India). She is the first Lady-Scientist to be elected as the General President of the Indian Science Congress in 1975. The same year, she was

conferred the title: *Padma Bhushan* by the Government of India. Professor (Mrs.) Chatterjee has been the recipient of scores of awards and laurels from prestigious National and International Organizations. As a Scientist-Academia, she was nominated twice by the President of India as a member of the Parliament (*Rajya Sabha*) (1982,1984).

Professor (Mrs.) Chatterjee, along with her scores of research students and associates has made significant contributions in the fields of alkaloids, terpenoids, polyphenolics, and in structural and mechanistic Organic Chemistry. Her pioneering work on the alkaloids of *Rauwolfia*, *Alstonia*, *Kopsia*, *Rhazya* and *Vinca*, has made immense impact on researches that followed in the field of indole alkaloids (novel 5 α -pregnane derivatives) from Apocynaceae and Buxaceae. In terpenoids, she provided cutting-edge methods of transformation and correlation of their different skeletal patterns, e.g. through catalytic rearrangements and synthesis. Coumarins of the Rutaceae, Umbelliferae, Compositae and Euphorbiaceae, are yet another group of natural products which bear the imprint of her contributions. Mechanistic studies, e.g. acid-catalysed hydramine fission reaction, constitute yet another of her contribution which has been cited in text book of Organic Chemistry (I. L. Finar).

A large number of students have obtained their Ph.D. and D.Sc. degrees under her guidance, many of whom are now occupying topmost and senior positions in academia and industry in India and abroad. I am one of those privileged pupils who have been receiving her ceaseless and bountiful grace.

Professor (Mrs.) Chatterjee has published more than 350 original papers in internationally reputed scientific journals and 20 review articles in peer-reviewed serial volumes. As the principal author she has compiled (in six volumes) the Treatise on Indian Medicinal Plants, under the aegis of the Publication and Information Directorate, CSIR, New Delhi.

In recent years, she has been devoting a considerable period of her time for drug development (alternative medicine) from natural sources. The antiepileptic drug Ayush-56, from *Marsilia minuta* and *Nardostachys jatamansi*; and the antimalarial, Ayush-64, a combination of four herbs, have been patented by the Central Council of Research in Ayurveda and Siddha (CCRAS), Union Ministry of Health, Government of India. Since the beginning of her academic pursuit, she dreamed of establishing an Institute for research and development of Ayurvedic medicines based on Indian medicinal plants. Her mission has now been fulfilled by the generous grants from the State and the Union Government. The Institute is located at Salt Lake City, Kolkata.

Professor (Mrs.) Chatterjee has travelled far and wide in connection with dissemination of the fruit of her research to world – community. She has participated in international Scientific Symposia and Conferences many times as the Leader of Indian delegation and as a distinguished invited speaker.

Professor (Mrs.) Chatterjee loves to spend her leisure time with her present and erstwhile students discussing their interest, problems, and in inculcating new ideas in them. By her grace, she has made herself adorable to all her students. Her life is a unique example of commitment and harmony between the professional and the private life. Her only child, Julie; and son-in-law,

Abhijit Banerjee, are also reputed organic chemists and are professors in the Department of Chemistry, Calcutta University. Her grandson, Aniruddha also has a brilliant academic career; he is, however, inclined to life sciences, - Zoology in particular. The interest of Professor (Mrs.) Chatterjee has extended beyond the boundaries of academic profession. She has been interested in vocal music since her childhood days. She received specialized training in Indian Classical music, and in this field also, received many awards.

Professor (Mrs.) Asima Chatterjee has completed 85 years and is still highly enthusiastic and active in the pursuit of Science and life-divine. May the Lord bless her with a long and continued active life for many more years.

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