

Asima Chatterjee (1917–2006)

Asima Chatterjee, the grand old lady of Indian science, is no more. She breathed her last on 23 November 2006 in Kolkata.

Born on 23 September 1917, she showed early promise as a brilliant student. She obtained her M Sc degree from Calcutta University in 1938, with organic chemistry as the special paper and D Sc degree in 1944 from the same university under the guidance of P. K. Bose, the pioneer natural product chemist in India. Incidentally, she happens to be the first woman to be awarded the D Sc of any Indian university.

In 1940, Chatterjee joined Lady Brabourne College, Calcutta, as the Founder-Head of the Chemistry Department. In 1944, she was appointed as an Honorary Lecturer in Chemistry, Calcutta University.

She worked with L. M. Parks, University of Wisconsin, USA (1947) on naturally occurring glycosides, with L. Zechmeister, California Institute of technology, Pasadena, USA (1948–49) on carotinoids and provitamins and with Paul Karrer, N.L. University of Zurich (1949–50) on biologically active alkaloids, which became her life-long interest ever since. After her return to India in 1950, she vigorously pursued investigations on the chemistry of Indian medicinal plants, particularly alkaloids and coumarins.

In 1954, Chatterjee was appointed Reader in the Department of Pure Chemistry, Calcutta University, which became her permanent address almost till her death. In 1962, she became the Khaira Professor of Chemistry, one of the most prestigious and coveted Chairs of the Calcutta University which she adorned till 1982. She continued as the Honorary Coordinator of the Special Assistance Programme to intensify teaching and research in natural product chemistry, sanctioned by the University Grants Commission in 1972 and later recognized as the Centre of Advanced Studies on Natural Products in 1985.

Through her untiring efforts, Chatterjee could fulfil her life-long dream to establish a Regional Research Institute for carrying out research on Indian medicinal plants for the development of Ayurvedic drugs along with an Ayurvedic Hospital for systematic clinical trials through a unique Centre-State collaboration, under the aegis of the Central Council for Research in Ayurveda and Siddha in Salt Lake City, Kolkata. As the Honorary Principal Coordinator, she nurtured this Institute till the end of her life.

Chatterjee successfully developed the anti-epileptic drug, Ayush-56 from *Mar-*

silia minuta and the anti-malarial drug from *Alstonia scholaris*, *Swertia chirata*, *Picrorhiza kurroa* and *Ceasalpinna crista*. The patented drugs have been marketed by several companies. She was also associated with the pharmaceutical industry as Director or Consultant.



She made significant contributions in the field of medicinal chemistry with special reference to alkaloids, coumarins and terpenoids, analytical chemistry, and mechanistic organic chemistry. She published around 400 papers in national and international journals and more than a score of review articles in reputed serial volumes. Her publications have been extensively cited and much of her work has been included in several textbooks.

Chatterjee edited and revised the six-volume *Bharatiya Banoushodhi* published by the Calcutta University. She was also the Chief-Editor of the six-volume series, *The Treatise of Indian Medicinal Plants* published by CSIR, of which I had the privilege of being the co-editor.

She was elected a Fellow of the Indian National Science Academy (INSA), New Delhi (1960), received the Shanti Swarup Bhatnagar Award (1961) and was conferred the prestigious Padma Bhushan (1975) amongst other awards. She was the first lady scientist to be elected as the General President of the Indian Science Congress Association (1975). She was conferred the D Sc (*Honoris causa*) degree by a number of Universities.

As a scientist-academician, Chatterjee was nominated by the President of India as a Member of the Rajya Sabha which she served with distinction from February 1982 till May 1990.

She travelled extensively and visited almost all the leading centres of natural products chemistry on bilateral Scientists Exchange Programmes, on lecture tours or as a member of the Indian delegation.

Asima Chatterjee achieved success against heavy odds due to her exemplary

indomitable spirit, total commitment, strong will, hard work and an insatiable urge for the pursuit of knowledge. Her philosophy and work culture can be summed up by her own statement in an interview with a Bengali weekly about 30 years ago: 'I wish to work as long as I live', a promise she kept by letter and spirit. She attended her laboratory even during the last year of her life despite her frail health, an example hard to emulate. A large number of students obtained Ph D and D Sc degrees under her guidance and supervision. However, to my mind, her best contribution to Indian science was that she could establish a School of Natural Products Chemists to carry forward her legacy in India and abroad in universities, research institutions and industry.

She was a religious person, passionately devoted to the ideals of Ramakrishna and having implicit faith in the philosophy of Swami Vivekananda. She was a unique example of harmony and commitment between professional and domestic life.

Her husband, Baradananda Chatterjee, a physical chemist pre-deceased her in 1967. She is survived by her daughter, son-in-law and grandson.

On a personal note, I joined Chatterjee's group in 1952 as a Ph D student and have had the privilege of enjoying her affection and confidence for more than 55 years. It was not easy those days to carry out research in an ill-equipped university laboratory with meagre funds and hardly any prospect of research as a profession. Still she could motivate, inspire and instill in her students the sense of commitment, integrity, sincerity, tenacity and all the essentials of a good research worker by her own example. As a teacher, she was a hard taskmaster, never satisfied with the performance so far as work was concerned. As a human being she was kind-hearted and understanding. She would go out of her way to help not only her own associates, but anybody who would approach her.

It will be difficult to fill the great void created by Chatterjee's death. She will, however, eternally shine in the horizon of Indian science through her contributions and in the memories of those who came in contact with her.

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