

Arun Kumar Sharma (1924–2017)

Professor Arun Kumar Sharma, former Sir Rash Behari Ghosh Professor and Head of the Department of Botany, founder Programme Coordinator of the Centre of Advanced Studies in Cell and Chromosome Research at the University of Calcutta, and Jawaharlal Nehru Fellow and National Professor of the University Grants Commission, INSA Golden Jubilee Professor, President of the Indian National Science Academy, National Academy of Sciences India, and General President of the Indian Science Congress Association, a distinguished alumni and recipient of the best teacher award of the University of Calcutta, and the founder and editor-in-chief of the international journal *Nucleus* (Springer Nature), breathed his last on 6 July 2017 in Kolkata. Whereas the Sharmas (A. K. Sharma and Archana Sharma (AS)) did not have any biological progeny, they are survived by a large number of students (who consider themselves as their surrogate sons and daughters), admirers and academic beneficiaries spread across the globe.

Sharma was a steadfast believer in the power of God; his every conversation would end with 'Thakur Aachhen – There is God'. An ardent devotee of Ramakrishna Paramahansa Deb and Swami Vivekananda, Sharma spent his whole life in Karma Yoga and worked with pleasure and happiness for the pursuit of knowledge without any attachment to prestige and honours. He was closely connected with the Ramakrishna Mission, and was Vice President of the Governing Body of the Ramakrishna Mission Institute of Culture (RKMIC), Gol Park, Kolkata. After dispensing his material assets in the service of the weaker sections, he was staying in the International Guest House of the RKMIC for the past three years. The RKMIC organized a special condolence meeting in his memory on 22 July 2017 while the diamond jubilee issue (the December 2017 issue) of *The Nucleus* published articles dedicated in his honour contributed by his peers and admirers. The Alumni Association of the PG Department of Botany, University of Calcutta organized a memorial function and seminar on Sharma's scientific journey on his 94th birthday on 31 December 2017, recounting his personal and professional attributes and

unique teaching style and qualities of a perfect teacher and institution-builder. His detachment to power vis-à-vis passion for teaching and research is well reflected in the fact that he declined the offer of the office of the Secretary of Environment, Government of India and Directorship of national scientific institutions in favour of professorship in the University of Calcutta.



Sharma had a photographic memory and remained active till the end. As Head of the Board of Editors, he had just completed the process of revision of the 11-volume edited series on *History of Science in India*, the first edition of which was published in 2014 by the National Academy of Sciences India, Allahabad, and RKMIC. A celebrated plant scientist and an internationally acclaimed cytogeneticist, he had several distinguished professional honours to his cap, including the coveted Shanti Swarup Bhatnagar Prize of the Council of Scientific and Industrial Research and Padma Bhushan, GoI.

Popularly known as 'AKS' among his peers, Sharma was born on 31 December 1924 in Kolkata to Charu Chandra Sharma and Shovamoyee. He lost his father at the tender age of 8, and was looked after by his maternal family. Sharma would narrate stories of his mother's sacrifices, touching an emotional chord in the hearts of those who listened.

AKS obtained his B Sc in 1943 with 'half free scholarship', M Sc in 1945 and

D Sc in 1955 from the University of Calcutta. After a brief stint at the Botanical Survey of India, he joined the Department of Botany, University of Calcutta as a full-time temporary teacher in 1947, full-time Assistant Lecturer in 1948, and rose to the positions of Lecturer and Reader, and was appointed as Sir Rash Behari Ghosh Professor and Head of the Department of Botany at the University (1969–1980), and continued as Ghosh Professor until 1988. He attained scientific expertise researching throughout in India, without going abroad for any formal training. An internationally acclaimed cytotaxonomist, cytogeneticist and cytochemist, he was a complete botanist and geneticist with a strong command on taxonomy, evolutionary and developmental biology of land plants.

As a cytogeneticist, Sharma had the conviction that the study of chromosomes should not be confined to just meristematic tissues; instead every organ should be targeted to understand the structure and behaviour chromosomes. In pursuance of his conviction he developed several laboratory techniques for the study of chromosomes from mature and differentiating tissues, leading to the conceptual information on chromosome dynamism *in situ*, polytenic and tandem duplication of chromosomes during development and differentiation, and a new concept of speciation in asexually reproducing species through fixity of chromosome number in differentiating meristems. He has mentored more than 80 Ph D and 10 D Sc scholars, and authored more than 500 research papers, including six in *Nature*, and authored/edited several reference books/special issues of journals and contributed invited reviews/articles to a host of prestigious journals and treatises. A more detailed account of his professional contributions and personal attributes can be found in the articles published earlier in *Current Science* (2014, **107**, 522–528; <http://www.currentsci-ence.ac.in/Volumes/107/03/0522.pdf>), and *The Nucleus* (2017, **60**, 243–245; <https://doi.org/10.1007/s13237-017-0226-3>).

Besides his own research activities on various domains of plant science, Sharma had significantly contributed to the policy, planning and formulation of

PERSONAL NEWS

scientific and technical programmes for the growth of science in India in general, and biotechnology and environmental sciences in particular. AKS had exceptional courage and conviction at the young age of 33 to start an international journal of cytology and allied topics (*The Nucleus*) in 1958. He authored (jointly with his wife – also a celebrated plant scientist and human geneticist) the classic reference book *Chromosome Techniques: Theory and Practice* (Butterworth & Co Ltd, London, 1965, 1972, 1980) that has been used extensively across the globe. L. F. Randolph (University of Cornell, USA) referred to his laboratory as the largest chromosome family in the world. J. B. S. Haldane admired both AKS and AS, and often vis-

ited his laboratory during his stay at Kolkata. Haldane was particularly fascinated by his monumental study published in *Chromosoma* on the B chromosome-mediated natural transformation of *Allium stracheyi* from diploid to tetraploid state on account of environmental change from temperate to tropical region.

An accomplished swimmer and mountaineer meeting the requirements of field collections of a botanist, and a human par excellence, he commanded extraordinary leadership qualities befitting the adage of a true leader but never looked like a boss, constantly inspiring peers, colleagues and students alike. He always appreciated constructive difference for the sake of the best in scientific discourses. He would often cite Lord Bud-

dha, ‘Do not believe what your teacher tells you merely out of respect for the teacher’ – and emphasized that a disciple has the right to differ with his mentor in the search of truth.

As a teacher, researcher, educationist, scientist and institution-builder for well over seven decades, Sharma’s invaluable contribution to science will be remembered forever.

UMESH C. LAVANIA

*CSIR Emeritus Scientist,
Department of Botany,
University of Lucknow,
Lucknow 226 007, India
e-mail: lavaniauc@yahoo.co.in*