

# Prof. Holenarasipur Yoganarasimhan Mohan Ram

(24<sup>th</sup> September 1930 – 18<sup>th</sup> June 2018)



Prof. Holenarasipur Yoganarasimhan Mohan Ram (popularly known as HYM among the botanical fraternity), born on 24<sup>th</sup> September 1930 in Mysore city of the state of Karnataka to an illustrious parents (mother Smt. H. Y. Saraswati and father Shri H. Yoganarasimham) from whom he inherited love and passion for plants, literature and music from his childhood days. After completion of Bachelor's degree from St. Philomena's College in Mysore (1950) and Master's from Balwant Rajput College, Agra (1953), he engaged himself under guidance of Prof. Panchanan Maheshwari, legend of embryology, and started research works on the seeds developmental biology of the family Acanthaceae and obtained PhD degree in 1959. Afterwards as a Fulbright and Smith-Mundt Fellow, he got chance to work at Cornell University, Ithaca, NY, USA, with FC Steward and received advanced training in plant physiology, morphogenesis and tissue culture. In 1970-71, as UNESCO-UNDP Senior Fellow, he collaborated with Dr. J.P. Nitsch in laboratoire de Physiologie Pluricellulaire, CNRS, at Gif-Sur-Yvette, France and studied developmental and floral biology in the family Utriculariaceae. During his scientific career, he worked and interacted closely with stalwarts in diverse areas of plant sciences, such as his mentor Dr. M. Ananthaswamy Rau, Mr. B.N.N. Rao, Prof. P. Maheshwari, Prof. F.C. Steward, Dr. J.P. Nitsch and Phillip R. White.

He started his career in Botany as a Demonstrator of Practical classes at St. Philomena's College, Mysore. Subsequently, he secured a Part-time Assistant Lecturer post at BR College, Agra with a monthly remuneration of Rs. 50/-. During these days, even with poor laboratory infrastructure and limited library facilities, Prof. HYM, under guidance of Prof. Bahadur Sing, initiated research work on embryology of 'Blood flower' (*Asclepias curassavica*) and *Cryptolepis buchanani*, formerly included under the family Asclepiadaceae and currently shifted to Apocynaceae. Afterwards in 1953, he joined St. Philomena's College, Mysore as a Lecturer for a short period and later selected as a permanent Lecturer in University of Delhi. He held the positions of a Reader (1961-68) and Professor (1968-95) of Botany at University of Delhi. He helped in the establishment of the Department of Genetics and Environmental Biology at Delhi University. After superannuation from service, he joined Indian National Science Academy (INSA) as Research Scientist where he served rest of his life as Senior Scientist (1996-2001) and Honorary Scientist (2006-2018). He was a great Patron and ambassador of Science museum and served as the member of the Governing Body of the National Council of Science Museums and also as the Chairman of the Executive Committee of National Centre, New Delhi for several years. He was the Chairman of NCERT biology

textbook committee during 1986-1988 and Vice President of Indian Academy of Science during 1988-1990. Despite of illness, Dr. Mohan Ram carried out his routine research works at Shriram Centre for Industrial Research till his last day.

For almost more than 65 years, Prof. HYM, although an authority on tissue culture, carried out botanical researches in multifarious fields such as endosperm and its growth and culture, modification of flower sex expression in plants using plant growth regulators, physiology of inflorescence of lupine, Gladiolus, Chrysanthemum, Calendula, Marigold and flowers of carnation, the biology of Indian aquatic plants (*Ceratophyllum*, *Trapa*, *Limnophyllum*, particularly in *Utricularia*) tree biology, pollination biology and evolutionary biology. Some highlights of his noteworthy contributions are Banana tissue culture, sex expression in *Cannabis*, Post-pollination changes in flower color (*Lantana camara*), Flora of Karnataka, Biology of Podostemaceae, Insectivorous plants, Bamboo etc. Along with his students, he first time reported that *Utricularia* can utilize inorganic nitrogen for growth under short day conditions (20 cycles of 16 hrs dark and 8 hrs light) and discovered and described a number of intriguing tissue culture techniques in plants. Sponsored by a research grant from the United Fruit Company, while in Steward's laboratory, HYM initiated works on tissue culture of the banana varieties resulting *In-vitro* propagation of banana, the most successful commercial achievement in India. Team headed by Prof. Mohan

Ram conducted a landmark research in induction of fertile female flowers, more effective than male flowers, in male plants by ethephon and NIA 10637. By offering unique tissue culture method, HYM's groups made first successful report on somatic embryogenesis and plantlet regeneration from the seed culture of *Bambosa bambos* and *Dendrocalamus strictus* via a callus. The hallmark of Prof. HYM works seems to be simplicity in experimental methods combined with meticulous observation and documentation. Innovative and high quality researches were convincingly amalgamated in simple ways with basic equipment and very little amount of grants.

His profound scientific contribution is evidenced with more than 240 research papers and several books. He had guided 32 PhD students.

In recognition of his outstanding contributions in different fields of Botany, he received a number of National and International awards and honours such as JC Bose Award (1979), the Om Prakash Bhasin Award (1986) and the Sergei Nawashin Medal of the USSR (1990).

As Doyen of Indian Botanists, Prof. HYM will always be remembered because of his talents in diversified fields of Biology and outstanding knowledge in teaching, research & new technologies, photography, Science popularization, travel, music, cricket and even cooking. Authors of BSI Scientific community pay respectful tribute to his demise on 18<sup>th</sup> June, 2018.

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