

Guest Editorial

A TIMELESS PERSONALITY - A DELIGHTFUL MEMORY



The Author Prof. G.S. Chhina (right) with Prof. Baldev Singh (centre) and Prof. B.K. Anand (left).
(Courtesy : Prof. R.L. Bijlani)

“In the Flood of life in the storm of deeds
I surge and ebb,
Weaving to and fro
An eternal sea
A changing weaving
A glowing life
I create at the whirring loom of time
And work the deities' living garb”
(Goethe in Faust)

The subject of this eulogy was a towering colossus among Indian scientists, who pioneered the study of neurosciences in the subcontinent. A handsome, cultured and dignified personality with a deep love for poetry, music, and philosophy, he was dedicated to the quest for knowledge and delighted in academic activity. He was an intellectual giant who became a legend in his own time. He generated awe and admiration amongst students, fellow neuroscientists with his qualities of human warmth and compassion. He could 'mesmerize' his audience, be it a classroom, a seminar room, a lecture theatre or an international gathering of selected experts in neurosciences. He knew the art of recognizing and nurturing the talents of eager young potential intellectuals looking for growth and development. He could feel at ease and generate inspiring bonds with the highest and lowest ranking person in the social hierarchy; be it a lab technician or a specialist in neurosciences in its various disciplines. He was a pillar of strength for all who knew him. He never spoke ill of anyone and always had a word of praise for his students and colleagues. He gave up a life of luxury, a lucrative medical practice and a well-settled family life, to satisfy his inner urge for knowledge and neuroscience. Those who knew him and his achievements of head and heart, will remember him with affection and immense gratitude for teaching and setting of standards of a role model as a selfless dedicated clinician, teacher and a neuroscientist. Because of his ever helpful disposition and readiness to embrace truth he could claim the veneration of a large number of students, patients and colleagues. He was not an individual but an institution. He is none other than the person called 'Grandfather Neurone' with reverence. His name was Dr. Baldev Singh whose 100th birthday we are celebrating by paying our homage in this issue of IJJP. Only his physical form has parted but his spirit will always keep inspiring us to emulate him. His sub-caste was Vaid but he never used it with his name because of his secular beliefs. To understand and trace the events of his life a brief mention of various landmarks of his family history and academic achievements are given below.

Narain Das Vaid of Jammu in the revenue service of Jammu and Kashmir State married the daughter of Risaldar Major Ganda Singh, OBI, IOM, from Village Zaffarwal Datta, District Sialkot, Punjab (now in Pakistan). She was affectionately called Bebeji. Risaldar Major Ganda Singh of Fane's Horse Regiment was a recipient of the highest gallantry award then available to Indian soldiers, the 'Indian Order of Merit' in 1858. As an ADC to the Commander-in-Chief of the Indian Army (Field Marshal Sir Fredrick Roberts) he received a village near Amritsar as *Jagir* (land grant) on his retirement in 1890 for his exceptional services. This village was named after him as Ganda Singh Wala. Dr. Baldev Singh was the third child of his parents and was born 101 years ago on April 13, 1903 at Zaffarwal Datta. However, in the school records the date of birth shown is April 6, 1904, which is also mentioned in the official documents. His birth was accompanied by two other events in the family. His elder brother was married and his maternal grand father Sardar Ganda Singh, died within a gap of few hours on the day of his birth. Dr. Baldev Singh grew up and received his initial education at Government High School, Amritsar, located close to village Ganda Singh Wala.

His elder brothers (Sardars Amar Singh and Shamsher Singh) managed the financial and family affairs after passing high school. They were keen that their brother should become a doctor. He showed love for learning from the very start. He won a scholarship in 8th class and stood first in the 10th class. Baldev Singh completed F.Sc. medical group from DAV College, Lahore, where he stood first in the exam. He obtained MBBS degree from King Edward Medical College, Lahore, in 1927. During his stay at the medical college he won several medals and prizes. In addition to

other subjects he was a medal holder both in Anatomy and Physiology. This process of receiving awards and medals continued till the end of his career.

He served as Medical Officer in the state of Jammu and Kashmir for two years (1927-1929) immediately after graduation. In 1928 he married Shanti Devi. His urge to learn more was not satisfied as yet, so he went to UK for further study in 1929 and obtained Membership of the Royal College of Physicians (MRCP) London, in 1930 in the very first attempt. He made a mark as an industrious and intelligent student. His motivation for a life study of neurosciences was kindled further during this period by exposure to the great personalities in medical sciences who were involved in making landmark discoveries. He was fascinated by the upcoming neurosciences and neurosurgery. His interest in the nervous system was inspired by his school teacher Mohan Lal Bhalla when he was in the ninth and tenth class. It was further reinforced by Professor P.B. Bharucha when he joined medical college. Dr. Bharucha appointed him prosector and for two years guided him to dissect the brain specimens for demonstrations. Later when he was at London studying for his MRCP, he was impressed by the dual appointment of Dr. Derek Denny-Brown, who was a physician at the Queens Square National Hospital and also worked in the Department of Physiology at Oxford. Eye catching publications of Hans Berger in 1929, C.S. Sherrington, E.D. Adrian and W.G. Walter on the emerging use of electroencephalography sowed the seeds of his continued interest in neurology and neurosciences.

He went to Edinburgh to obtain FRCS Neurosurgery but due to pressing personal reasons had to return to India in 1931 without achieving this objective. Instead of

looking for a job he set up his consultation practice as a general physician near his village and in the old city of Amritsar. In those days he was perhaps the most well dressed and dignified physician in town and took care of every detail to project the life style and personality of a well-to-do medical practitioner. Soon he became a popular practitioner to whom patients came with reverence from the city of Amritsar and surrounding villages. Even in those days he practiced holistic-medicine. In spite of his success as a practitioner he was restless within to uncover his potentialities of a teacher and a research scholar. He spent much of his earnings in acquiring current journals and recent books to update his library and knowledge on the subject. He financed his own research lab in addition to maintaining links with the faculty of the medical colleges at Lahore and Amritsar for collaboration. He developed an experimental model of human anemia, made a microscopic study of nail bed capillaries in health and disease. He tried to differentiate between glandular tuberculosis and Hodgkin's disease by animal inoculation in rabbit cerebellum.

He participated in all the meetings of British Medical Association (BMA) at Amritsar and Lahore branch. He visited as honorary physician and collaborated in research projects and activities of medical colleges at both these cities. He maintained meticulous records of his patients, which he used for teaching postgraduate students in medicine. His well prepared, up-to-date contributions in the form of lectures, critical comments and penetrating questions at the BMA were immensely valued. His very presence improved the quality of presentations and cautioned speakers to come well prepared. Dr. B. K. Anand a renowned neurophysiologist recalls having attracted his attention at one these BMA

meetings in 1947 at the Amritsar branch. Dr. Anand had completed his well prepared presentation on hepatitis at BMA. He remembers that as soon as he finished his lecture Dr. Baldev Singh stood up from the audience for his remarks as usual. Although Dr. Anand was nervous, but to his relief, Dr. Baldev Singh remarked that he has listened to numerous lectures at these meetings but that day's presentation was one of the best. When he went to thank him for his comments, Dr. Singh told him that if he would like to learn about medicine, he could visit him at his clinic in the evenings. Dr. Anand was then preparing for his M.D. Exam of the Punjab University. He along with some other post-graduate students spent evenings at Dr. Baldev Singh's clinic to learn medicine. Post-graduate students found these evening teaching sessions very useful as there was no structured teaching available for M.D. in those days. However, these pursuits and achievements were inadequate to grant Dr. Singh satisfaction. He wanted to do more to satisfy his first love of learning and his unfulfilled urge to study the neuroscience.

My first encounter with him was when I was referred to him as a patient for consultation for a chronic problem of GIT in 1947. He made me feel normal within a week's time. I saw him second time in 1948 with professor of Physics in the college where I was a Science student. He used to visit the department regularly to carry out experiments on electricity and magnetism. The third time I saw him was in 1954 in the Department of Physiology at Lady Harding Medical College (LHMC) when I was working in the lab of Dr. B. K. Anand. He had then introduced me to the Professor of Physics at Delhi University with whose help he fabricated instruments for research, which were not readily available in the market for carrying out experiments. Then

I discovered that he could not be stopped to test his ideas for want of instruments. He found resources to make his own till the regular supply could be procured.

Having studied a recent publication on clinical EEG in 1948, he wrote to the author in the United States of America that he was interested to learn about EEG, who in turn directed him to approach Prof. F.A. Gibbs at the Neuro-Psychiatry Institute of Illinois University, Chicago. His primary objective was to learn EEG, clinical neurology and experimental techniques to study the brain functions. Dr. Gibbs accepted him after some initial hesitation. So at the age of 45, he wound up his flourishing practice at Amritsar, and left for USA at the end of 1949 for his training in neurology and EEG with Dr. F.A. & Mrs. E.A. Gibbs where he worked from 1950 to 1951. He carried out lesions in the cat thalamus by implanting radon seeds and recorded cortical EEG by implanted electrodes. He was able to demonstrate petit mal discharges. He showed cortico-thalamic involvement in the genesis of spike and dome EEG responses as seen in human EEG's by this animal model. Dr. Gibbs included these findings in his 'Atlas of Electroencephalography' in 1952. His name was also added to the Editorial Board of the 'Clinical Electroencephalography' journal of the American Medical Electroencephalographic Association on the basis of his publications and recognition of his performance as neurologist. He continued this research in cats later in India to bring out the origin of thalamic spike and slow wave activity in EEG. It was at Chicago in one of the conferences that he met and came to know that Dr. B.K. Anand was working with Dr. Fulton at Yale in the field of hypothalamic neurophysiology. This meeting proved to be an important landmark for the future development of neuroscience in India and a

lifelong collaborative relationship between the two scientists. He returned to India in 1951. He could not find a suitable opening in Amritsar or Delhi for the practice of neurology. However, he was offered an Associate Professorship in Neurology at Christian Medical College (CMC), Vellore. In collaboration with Dr. Jacob Chandy, a neurosurgeon at this college, he studied the surface and depth EEG in frontal lobotomy in schizophrenics and temporal lobectomy in epilepsies. His investigations on hypothermia in dogs found useful application in children with viral encephalitis. His association with the local faculty brought prominence to the college in neurosciences and trained the next generation of doctors to take over the development of the speciality of neuroscience at Vellore. After spending three years in Vellore, Dr Baldev Singh was persuaded by his old teacher, late General Amir Chand, to take up an assignment of consultant neurologist at the Tirath Ram Shah Charitable Hospital and Nursing Home in Delhi, in early 1955. At Delhi, he visited the Lady Hardinge Medical College and Hospital, Willingdon Hospital and later, Irwin Hospital as a consultant neurologist in the forenoon and worked at the Tirath Ram Shah Hospital in the afternoons.

In early 1952, Dr Anand had returned to India to his former appointment as Professor and Head of the Department of Physiology at LHMC where he had set up his neurophysiology lab. Dr. Baldev Singh joined him and Dr. C. L. Malhotra in the Department of Pharmacology to give expression to his deep interest in the research in basic neurosciences. He used to travel by bus to all these institutions and later by a three-wheeler. From this time on, he had completely dispensed with his earlier extravagant life style and henceforth lived in an extremely down to earth, utilitarian

manner with no frills or affectations. Even at TRS Hospital, he lived in a single-room apartment furnished with just one bed and a chair and he dined in the house physicians mess. Dr. Anand was later appointed at All India Institute of Medical Sciences (AIIMS) in 1956 and was granted a neurophysiology research unit, which he transferred to the Institute. Dr. Baldev Singh remained a collaborator with this unit until it was taken over by the AIIMS in 1967. He was offered the job of a Professor and Head of Department of Neurology at AIIMS at the age of 61, which is beyond the normal retirement age. He accepted, and worked here from Feb 1965 to Feb 1968 with the energy and enthusiasm which surpassed a young person. He shared his AIIMS accommodation with his friend Dr. S. L. Kalra, a Professor and Head of Microbiology department during the period that Dr. Singh had taken over as professor of neurology. While he joined as Emeritus Scientist of ICMR and as Emeritus Professor he was allotted Institute accommodation but he joined a mess in the students hostel where he took his meals along with the young students. He was a regular visitor to the central library and extremely punctual for his assignments. He had no hesitation in showing respect to a person in the chair at official meetings even when he could be very junior to him in age. His gesture taught humility even to the most arrogant personalities. His research fields at the AIIMS included neural manifestations of high altitude, brain edema, biofeedback, heat hyperpyrexia, yoga, sleep, consciousness, epilepsy, tissue culture, and neural regulation of visceral, autonomic and behavior. He was a guide for postgraduates in the specialities of neurology, neurosurgery, psychiatry, clinical psychology, neurophysiology, neuroanatomy and neurophysiology.

In addition to these activities, he was a principal investigator of a PL 480 research grant, on a 'collaborative study of epilepsy in India' at 5 different centers in the country for 5 years. He also submitted a multi-disciplinary research project to study various states of consciousness in 1967. His aim was to establish a brain research institute in India with the help of prominent neuroscientists. He was able to attract Dr. P. N. Tandon, a young neurosurgeon, and establish a collaborative functioning of neurology and neuro-surgery in the clinical setup. He promoted the postgraduate collaborative joint programs of teaching where M.D. and Ph.D. students of neurophysiology in physiology dept, DM students from neurology and MCH students from neurosurgery attended the seminars and lectures. Even students from psychiatry, neurochemistry and clinical psychology joined these programs.

On formal retirement as professor of neurology, he joined as an Emeritus Scientist of ICMR from 1968 to 1973 and was appointed as Emeritus Professor of AIIMS. His office was in Physiology but he shared his expertise without any boundaries of speciality or designation. He continued to work as Emeritus Professor till 1991. By this time, he had more than three hundred publications to his credit. His failing eyesight compelled him to spend the last few years of his life at his ancestral home in village Ganda Singh Wala, now a suburb of Amritsar. Even here he continued to keep in touch with new developments in the academic field and news about neuroscientists he had nurtured earlier in life. His daughter-in-law Indu looked after him most affectionately and kept him well informed by reading from the journals and literature that he kept on receiving by mail. He kept his spirits high and maintained his set routines till the last moment when he

left for his heavenly abode on February 2, 1998. I had seen him on January 30, 1998 when he talked to me for about 2 hours. He was in his usual cheerful and optimistic mood and shared with me few couplets and hummed a sweet tune. I left him with a promise to see him before leaving for USA. That day never came as he departed after a brief illness. Dr. J. S. Bajaj, Dr. S. Dua-Sharma and I from Delhi and some of my students from G. N. D. University Amritsar could join in his last rites and say farewell to a doyen of neuroscience in India.

He had a special equation with Dr. B. K. Anand, Dr. J. S. Bajaj, Dr. K. N. Sharma, Dr. S. D. Sharma, Dr. Usha Nayar and Dr. P. N. Tandon which transcended the academic barrier and encroached on social interactions.

Dr. Baldev Singh was one of the four founder members of the Neurological Society of India and a founder Fellow of National Academy of Medical Sciences. He was honoured twice (1962 and 1971) by the Neurological Society by electing him its president. He was elected honorary member of the American Neurological Association in 1971. He was elected as President for 3rd Asian and Oceanic Congress of Neurology, held at Bombay. He was elected fellow National Science Academy in 1967. He was a Honorary Fellow of Aero-Medical Society of India.

He was recipient of Basanti Devi-Amirchand Award, Air Marshal Subroto Mukerjee award, Sir Nilratan Sircar Oration, the National Academy of Medical Sciences Oration and Jacob Chandy Oration. He was granted the rank of Honorary Brigadier in the army by the President of India for his services as senior honorary consultant neurologist and adviser for

research in neurosciences to the Armed Forces and Armed Forces Medical College (AFMC). The President of India also decorated him with 'Padam Bhushan' for his outstanding contributions. He was appointed as honorary consultant to the President of India and Prime Minister of India.

While at CMC Vellore he was called with respect as 'Father Neuron', but in Delhi with more reverence he was addressed as 'Grandfather Neuron'. His dedicated and loving wife kept him free from household duties enabling him to devote his wholehearted attention to his love for his professional commitments. She managed the inherited resources, education and needs of the family. He received a big jolt on her death in 1964 when he had taken the challenge of organizing the specialities of neurology and neurosurgery at the AIIMS as a founder professor at the age of 61 years. Luckily for him, his son Dr. Birinder Singh had taken over as Professor of Radiology at Medical College, Amritsar. He along with his wife, Indu, took over the management of this task. However, Dr. Baldev Singh devoted time and energy to perform legal formalities to transfer property and estate to them.

Second shock that he received in life was the death of his son-in law Colonel (Hon.) Ved Rattan Mohan, husband of his elder daughter Tripta Mohan. She had to look after the financial and management responsibilities of her husband in the well-known family of Mohan Meakins in Delhi. I saw a visible change in his routines after this event. While earlier he was dedicated only to academic pursuits, now he started visiting his daughter's home on all weekends and holidays and took leave to visit his son in Amritsar until he was able to manage the affairs on his own.

The third shock that he received was the death of his only son in 1982 leaving behind his two sons (Bikram and Karan Singh) and wife (Indu). All the responsibilities now rested on his daughter in law Indu. Dr Baldev Singh now devoted all the attention required by his daughter in law. He relented to let his grandson Bikram to stay with him for preparing for his exam. This was first time when any family member stayed with him in the accommodation allotted by the AIIMS. His younger daughter Sudesh's husband Air Vice Marshal Kuldip K Bakshi helped a great deal to ease the burden to tide over the impact of this tragedy.

It is noteworthy that during these times of trial Dr. Baldev Singh did not neglect any of his professional responsibilities. In fact except for those very close to him, most people did not even know about the personnel grief of Dr. Baldev Singh as he did not reveal to them and continued his normal routines in the departments.

Dr. Baldev Singh had a well-rounded personality. Like many village youth in rural Punjab, he was a wrestler when young. A romantic with a love for Urdu and English poetry, he was an excellent singer and rendered classical and folk songs with

a melodious and full throated voice. He was a very humble, simple and dedicated person with unflinching devotion to his first love for neurosciences and neuroscientists. He exercised exemplary austerity and never returned to the life of luxury that he could afford but had given up voluntarily. I had the privilege to share with him my office and office table from 1968 to 1987, while I was a professor in the Department of Physiology. We shared emotional bonds of close friendship but never asserted any claim for personal advantage. He shared his love with a judicious austerity never denying anyone who deserved it. He shunned praise, publicity and popularity and had immense adaptability and endurance to cope with adverse circumstances. He was an unlimited source of inspiration for all. Let us look ahead to continue our academic pursuits following his guidelines of character and unbending spirit and courage of conviction. The example of his timeless personality will keep on guiding the generations to come to pursue the unending task of shrinking the unknown and expanding the span of knowledge. May his soul rest in peace in heaven with the satisfaction that the seed of interest in neurosciences that he had sown is being nurtured and growing in the minds of the generations of his admirers.

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