

Born on 13 August 1928. at Shimla, second of the four sons of Dr. R. N. Tandon and Smt. Saraswati Devi. I received my school education at Delhi. living with my maternal grand parents. The independence movement was gathering momentum and there was an all engulfing spirit of patriotism which provided a sense of patriotism, daring and sacrifice even amongst the school children and adolescents. I still have the vivid memories of attending the "Prabhat Pheries", processions, lectures by the national leaders, the events of 1942, Quit India Movement. This inculcated a keen desire to excel to prove that we Indians were inferior to none. I passed my high school in first division, standing first in the school and seventh in the Delhi Board.

Very early in childhood I had, for reasons not now clear to me, decided to take up medicine as a career. There being no medical college for males in Delhi, I decided to move to Allahabad to live with my parents. There were two medical colleges in the state - at Lucknow and Agra. Having completed Intermediate Examination, standing first in the biology group in the college but achieving only a second division. I successfully competed for admission to both the medical colleges. The obvious choice was to join K G medical College, Lucknow, which had a better standing and reputation.

An unexpected high score in the very first midterm examination in Physiology highest seldom achieved earlier instilled a hope and desire to get to the top. While consistently doing well at all examinations, the first position could only be achieved at the final examination at the end. This made it possible to get a house job in the subject of one's choice which in my case was surgery. Again I am not sure of the motivation behind this choice, except probably that at that time medicine lacked definitive therapy while surgery had well defined indications and chances of cure.

It may be mentioned that I had just graduated to the clinical year (3rd year) when India achieved its independence. That was the time of national rejoicing, a new sense of pride, a hope to be able to carve one's destiny with dignity. This no doubt strengthened the will to succeed, to attain high standards, to work for the country. In every nook and corner of the country one could find leaders, whose sacrifices, dedication, high moral standards and ethical conduct were shining examples to follow. I mention this to reflect the stimulating milieu prevailing in the country in every walk of life. What a contrast from the current frustrating environment when promoting self at all cost has become the guiding force.

Of course poverty, rampant epidemics of infectious diseases, episodic occurrence of famines plagued the people of the country. Outside the major cities, health care services were rather poor or non-existent. To these symbols of shame were added the socio-political and economic consequences of partition. Yet the faith in our leaders, kindled confidence in ourselves, a dominating desire to protect the newly acquired independence and a will to prove worthy of the sacrifices of our leaders prompted the people to accept these challenges with hope and courage.

To come back to oneself, the euphoria of standing first was soon replaced by a realisation that getting the degree was not the end but the beginning of a new struggle. At the very first encounter with the "chief" Surgeon SN Mathur, one was told, "I am not impressed with someone standing first, every year one student does it, but I am interested in how well you do in the task ahead of you."

To come up to the expectations of one's hero thus became the driving force to strive harder and harder even in absence of any words of appreciation from him. Nearly escaping death from meningitis, acquired as a result of attempting mouth-to-mouth breathing to revive a grossly infected patient, ended the year of house-job. This was followed by even a harder year as a postgraduate student, without a job but a determination to complete the course in the shortest possible time. The joy of being the only one from my class to do so that year was cut short by not being selected to the next position - resident surgical officer - while two of those who were senior to me by one year though they failed in the MS examination with me were appointed. Suddenly I feared an end to my ambitions of being a surgeon. Not prone to giving up, I joined the Department of Anatomy as a Senior Demonstrator hoping this would help me prepare for the FRCS examination which was for all practical purposes mandatory if one wished to pursue an academic career. Soon I got an opportunity to move to Irwin Hospital Delhi as a Casualty Medical Officer.

In 1954, government of India invited a WHO team headed by L E. Volodarsky of Oslo, Norway to establish surgery for pulmonary tuberculosis at SJTB Hospital, Delhi. I saw a new opening for my cherished desire to be a thoracic surgeon. I joined as an Assistant Surgeon, at a personal financial loss (due to non-fulfilment of a promise by the Director Health Service Delhi, to safeguard my salary) and soon after turned down the offer of a District Medical Officer position in Madhya Bharat which carried a salary of more than double of my current emoluments.

At that time newer subspecialties like thoracic surgery and cardiac Surgery were being introduced in the country. There were hardly a few in the country - all recently trained abroad. Whether it was the challenge of taking up this difficult task or the glamour attached to it or both I was keen to take it up as the next step. This was the year 1953. Dr. Chandy, Dr. Ramamurthy and Dr. Ginde had already initiated neurosurgery in the country. But I was not yet aware of their work. Dr. Pritam Das who joined the faculty of the Department of Surgery in 1950 was expected to initiate this speciality in the College, having spent sometime with Sir Geoffry Jefferson. But for reasons best known to him he seemed extremely reluctant to take up this challenge. Sadly realising that any worthwhile position as an academic surgeon was not possible without a stamp of FRCS and failure to get any assurance from the authorities for not transferring me from the thoracic surgery unit forced me to resign from my job and leave for England to get the "stamp", which was achieved in shortest possible time.

Switch to Neurosurgery

After obtaining FRCS, I wished to pursue training in thoracic surgery. My erstwhile chief Dr. Volodarsky, for whom I was like an adopted son, insisted on my coming over to Oslo, where the renowned Prof. Carl Semb (of Semb Thoracoplasty fame) was the Chief. However, Dr. Volodarsky persuaded me to join Dr. Kristian Kristiansen, the neurosurgeon in the same department. with a promise that if I did not like neurosurgery I can go back to thoracic surgery with Prof. Semb. The reason for this advice sounded somewhat bizarre to me at that time but proved to be true. I was told by Dr. Volodarsky, "Dr. Kristiansen is a unique human being, besides being an outstanding neurosurgeon. And since I like you so much that I would like you to be like him. Even if you decide not to pursue neurosurgery, your contact with Kristian would be worth "spending" six months with him." Though not fully convinced at that time I decided to accept the suggestion.

At Oslo

So from the glamorous metropolitan London, I landed in Oslo a small provincial town in February 1957. Whoever heard of my decision to go to Oslo, wondered at the wisdom of my decision. Thinly populated, not yet having fully recovered from the ravages of German occupation, felt like having arrived in wilderness. The monotony of the cold, dark, dull winter days was only relieved by the milky whiteness of snow all around, on the roads, on roof tops and the otherwise barren trees. The most redeeming feature was that I was to live with Dr. Volodarsky and was warmly welcomed by his vast circles of friends, he having no family of his own.

After a memorable meeting at supper with Dr. and Mrs. Kristiansen at their home, who waived off my reservations about embarking on this difficult venture, I was asked to join the department next-day. there were no formalities, bureaucratic hurdles. filling of forms. just an understanding between two friends to adopt a foreigner for training!

Neurosurgery was still part of the Department of Surgery, headed by Prof. Carl Semby sharing with it the offices. the operation theatres and even the wards, though some beds were reserved for neurosurgery in the Neurology Department situated in a separate building at some distance from the Surgery Department. I was deeply concerned about my lack of any prior exposure to neurosurgery, inability to communicate with patients due to language barrier, ignorance about local customs and culture. Of course one could converse with medical colleagues in English, but during the traditional morning conference, the radiology conference. the ward rounds one had to be a silent spectator of the proceedings. Luckily the hospital working hours being from 7.30am to 2 pm left lot of free time to devote to learning both the subject and the language. Soon there were no hurdles in this regard. Realising that on my return home I would not have the services of the allied specialists, I planned to spend my afternoons with the neuropathologist, Prof Wilhelm Harkmark and in EEG laboratory with Prof Birger Kaada. Simultaneously I found enough opportunities to learn neuroradiological procedures and their interpretation from Dr. Zimmer and Dr. Amundsen.

No doubt comparatively a small town, Oslo at that time had many leading lights in neurosciences. Prof Monrad Krohn, an acclaimed leader of European Neurology, a Visiting Professor to Queens Square. London, Author of Clinical Examination of the Nervous System and a large number of persons had recently retired from the University but were regularly seen at meetings and conferences. His successor Prof. Sigvald Refsum, had already acquired international recognition for his delineation of the syndrome of peripheral neuropathy, retinitis pigmentosa, deafness and cerebellar ataxia which is now known as Refsum's disease. Prof. Arne Torkildsen, o1'Torkildsen's shunt fame was now a practicing neurosurgeon in the town. Prof Tormod Hauge, who popularised Scheldinger technique for vertebral angiography, was then chief of neurosurgery at the Riks hospital. Norwegian neuroradiologists had acquired international leadership in this field. The Oslo University had a galaxy of famous neuroanatomists of that era. This included Prof. Jan Jansen with his monumental studies on the cerebellum. Prof Alf Brodal whose invaluable legacy-among many other, 'Neurological Anatomy in relation to Clinical medicine'-is still widely read, Prof. Fred Walborg and several others. Prof Birger Kaada whose work on amygdala and hippocampus remains a landmark contribution, was head of the Physiology Department, later to be replaced by his then student Prof. Per Andersen.

Though not located in one institution, there were enough. opportunities for me to interact with every one of these leaders. Their' warmth of friendliness, ease of approach and modesty were in themselves an unique experience.

When finally the summer arrived suddenly the environment brightened, life sprang all over, one could cast the winter gloom and enjoy the natural beauty which the country abound in. I was happily adjusted and started enjoying my work and life in friendly Norway. In the meanwhile a temporary licence and a paid job was arranged an I for me. I was now a formal member of the neurosurgical team. I had written my first paper, presented it to the Norske Laegeforeining (Norwegian Medical Association), partly in norwegian and initiated work on some others. I was hoping to complete my training in Oslo by, the end of 1958 and return home. But Dr. Kristiansen had other ideas. He insisted and arranged that I should go to Montreal to become "as well trained as the three Indian giants" of that time. Reluctantly thus I moved to Montreal, arriving there on New Year's Day 1959. Before leaving Oslo i had already completed a draft of a monograph, "Diagnosis and Surgical Treatment of Severe Head Injury"

At Montreal

Montreal Neurological Institute had acquired the status of "Mecca of Neurosciences". Dr. Penfield was still the Chief, Dr. Rasmussen had already returned from Chicago as the Director designate. Dr. Cone and Dr. Elvidge were the two other Senior Neurosurgeons. Dr. Francis McNaughton headed the team of a galaxy of distinguished neurologists - Preston Robb, Rab Rabinowitch, Lloyd Smith, Cosgrove Dr. Herbert Jasper and Dr. KAC Elliot provided the leadership in Neurophysiology, and Neurochemistry respectively. Dr. Donald McRae was the uncrowned king of Neuroradiology. Dr. Brenda Milner was already an acknowledged leader of the new discipline of Neuropsychology. The second line consisted of persons like Gilles Bertrand in Neurosurgery, Peter Gloor in Neurophysiology, Romeo Ethier in neuroradiology amongst others. Those in training represented all parts of the world, John Jane, Phanor Perot, Charles Branch, Cone Peevehouse, Ellis Keener, Floyd Cooper, Jessie Barber (from USA), Jules Hardy, Gordon Thompson, Steward Huestis, Hugh Sampson, (from Canada), Lucien Stapiens (from Polland), Desh Gulati, Vijay Dave and (from India). Tony Tarazi (from Lebnan),.were residents in neurosurgery. Drs. Chandy, Ginde and Ramamurthy had preceded us by several years. The earlier trainees at the Institute, who were already heading reputed departments included such distinguished names as Arne Torkildsen, Robert Pudenz, Maitland Baldwin, Joseph Evans, Sean Mullan, Bert Silverstein, Arthur Ward, Claude Bertrand the virtual who-is-who of contemporary neurosurgery. The same could be said of neurophysiologists, neuropathologists and neurochemists. One had the rare opportunity to meet many of these distinguished alumni at the time of Silver Jubilee celebrations of the Institute in 1959.

During my two years stay at the Institute, besides neurosurgery I spent three months in surgical neuropathology with Dr. Cone and six months in EEG rvith Drs. Jasper and Gloor, and simultaneously as a Teaching Fellow with Dr. McNaughton.

The training plogramme at MNI was very comprehensive, extremely demanding and poorly paid, just enottgh to survive. But it was a rewarding experience that brought one in contact with the most distinguished leaders of the speciality and at the same time made one feel as a part of a global family culminating in everlasting friendship.

Return to India

Notwithstanding several very tempting offers specially from the USA, I had firmly decided to return to India, and pursue my cherished goal of establishing a service for those who needed most. Of course I could not resist spending some time at Oslo on my way home where I arrived in May 1961. During my brief stop-over at Bombay Dr. Ginde made me a very tempting offer to join him at the Bombay Hospital. I had made up my mind not to accept a practicing position, since I was convinced that in the prevailing milieu of our country, working in a practicing job was not conducive to the establishment of a genuinely academic service. I believed that lure of private practice distracted one from academic work as also the service to the poor. I was therefore keen to join the All India Institute of Medical Sciences at Delhi which had recently been established. Even before reaching India I had applied for and was selected for a Pool Officer's position. For a variety of reasons, which I need not detail here, I accepted to work at my Alma Mater, where I was promised a Professorship within six months. I, therefore, joined the Department of Surgery at K. G. Medical College, Lucknow in August 1961. I must confess that the welcome, affection and support I got in my efforts to initiate the first ever academic neurosurgical service in the state, was simply overwhelming. This compensated for the low fellowship money (Rs. 570 p.m. to be precise), and lack of minimum working facilities. As a Pool Officer, Prof S. C. Misra, the Head of the Department of Surgery, provided me independent beds, use of his own operation theatre, and office and regular out-patient facilities. Another person who needs a special mention is Prof B. N. Lall, the Chief of Radiology, who inspite of all constraints opened the doors of his department and provided all support to develop neuro-radiology without which neurosurgery could not begin. There were many others like Dr. Jaiswal of Anaesthesia Department and Dr. K. M. Wahal a fully trained neuropathologist who lightened my burden voluntarily. Prof R. V. Singh, soon after taking over as Principal and Dean of the College, was a great source of strength. Thus within a short time it was possible to establish a reasonable service. No doubt the rich and the powerful would still go to Vellore, Madras or Bombay, but there was no death of trusting patients.

Simultaneously I initiated a numbers of clinical studies and disproved my other colleagues who warned me that no worthwhile research was possible there. Some of these studies were later published not only in our society journal-Neurology India, but also in international journals.

The promised Professorship was still elusive, but was not a matter of concern to me since I was happy in the progress of my work and the company of my friends. It was only two and a half year later in 1961. that I was finally appointed a Professor. Even though this was a practicing job I voluntarily refrained from doing so. My only regret was that the working facilities remained grossly unsatisfactory inspite of all good will. Dr. Kristiansen who visited me in April 1954, during his visit to Montreal soon after had this to say. "If I had not seen Prakash's patients alive and well with my own eyes I would not believe that, neurosurgery was possible with so little facilities." Another matter of concern to me was that in the brief span I had become the last word in the speciality. There was no one to challenge, there was no one to seek professional advice or help from. No doubt the Government had sanctioned the creation of a 20 bedded independent unit for which I had the honour to perform the "Bhoomi Pujan". I was thus worried about my future development. I still had not given up the hope of moving to AIIMS.

During this time the Departments of Anatomy, Physiology and a reputation for neuroscience research. The posts of Professor of Biochemistry at the All India Institute of Medical Sciences had established Neurology and Neurosurgery were finally advertised and I decided to apply. To my utter surprise I was selected, because Dr. Ramamurthy declined the invitation. It was now a crucial decision for me -my work was progressing satisfactorily at Lucknow though not as well as I would have wished. I was now married and my wife had a permanent faculty position in the college which she loved. AIIMS was still known more for its research activities than clinical service. It did not have its own hospital yet. but the prospect of its acquiring a national stature, the possibility of comprehensive growth of neuroscience, the opportunities for international collaboration, the growing reputation as a potential centre of excellence added to its attraction. Thus, with a very heavy heart at the cost of great sacrifice of my wife (who as it turned out was virtually forced to give up her cherished profession), and the risks involved in starting from a scratch once again. I finally decided to move to Delhi. I must put on record that but for my wife's sacrifice and support I could not have achieved my cherished goals.

ATAIIMS

I joined AIIMS on 1st March, 1965. The Institute had not yet completed its first decade. However, it was bubbling with activity all around - both physical and intellectual. Its existing faculty was a combination of youth in basic science departments and acknowledged mature clinicians. Dr. K. L. Wig had just taken over from Dr. B.B. Dixit as the Director, while he continued as the Head the Medicine Department. Dr. B. N. B Rao, Dr. N. Gopinath, Dr. K. C. Kandhari, Dr. Parvati Malkani, Dr. L. P. Agarwal and Col. G. C. Tandon were Heads of the departments of Surgery, Cardio-thoracic Surgery, Dermatology, Obstetric and Gynaecology, Ophthalmology, and Anaesthesiology respectively. Drs. L. Chacko, N. H. Keswani, B. K. Anand, RBL Arora. Ramalingaswami, Col. Kalra, were acknowledged leaders in their fields. It was my good fortune that the institute had been able to persuade Dr. Baldev Singh to accept the Chair of Neurology. He had joined a day before me.

Enthusiastic programmes for future development permeated the environment. Hope mingled with desire to excel seemed to be the prevailing spirit. Funds provided by the Rockefeller Foundation made it possible to obtain state-of-art equipments. However, the Institute hospital had not yet been ready for occupation, so the patients were temporarily housed in the Nurse's Hostel. The make shift operation theatres were far from the optimal requirements. As far as neurosurgery was concerned there was not even a full set of the basic instruments required. Yet the demands from the patients and pressure from the authorities to initiate neurosurgical work was incessant. It is no exaggeration to say that we did not have even five essential neurosurgical instruments including a usable Hudson brace, a proper set of rongeurs, even a brain spatula or suction tube, what to speak of a neurosurgical operation table or reliable cautery. of course there was no EEG or common neuroradiological facilities. Just before I joined I was assured that since there were adequate foreign funds available all my requirements will be procured and air- lifted in 6-8 weeks time. But this proved to be like any other administrative promise in the country. Nearly an year elapsed before we could have the bare minimum necessities.

Retrospectively I wonder if it was an unthinking overenthusiasm of a rash young man or the proverbial, "fools rush in where angels dread to tread" or simply an anxiety to prevent one's reputation from being sullied, I ventured to initiate surgery. Dr. Baldev Singh's advice, encouragement and moral support egged me perform the first operation within a month of my initiating the Department. After the initial mixed luck, I was in a short time able to successfully operate upon several patients with cranial and spinal tumours.

let me digress for a moment and describe the neurosurgical scenario at Delhi at that time. When in 1956. Dr. Baldev Singh moved from Vellore to Delhi to start the first neurology-neurosurgery service at the Tirath Ram Shah Charitable Hospital, Dr. Chandy who had earlier planned to join him, was persuaded to stay back. Dr. Baldev Singh had thus to look around for someone to take care of the neurosurgical problems. Col.A. C. Ray from Army Hospital. Lucknow and Dr. R. G. Ginde from Bombay would occasionally come and operate upon some selected cases. Ultimately in 1958, Dr. Vitor Rao joined him on a regular basis and he was simultaneously appointed Junior Honorary Surgeon at the Irwin Hospital (now known as the LNJP Hospital). However, the overall activity was in low-key. In 1962-63, Dr. Arjun Sehgal joined the newly established G. B. Hospital. Soon after the Chinese aggression in 1962, a neurosurgical unit was created at the Army Hospital under Lt. Col. Mahendra Singh. However, the first academic neurosurgical unit came into existence at the AIIMS.

Luckily for me by June 1965, Dr. A. K. Banerji joined the Department and from then on we were jointly able to make rapid strides. Soon we moved to the new hospital and our dedicated operation theatre, with improved facilities. Dr. Brahm Prakash joined as our first postgraduate student. We were able to start a comprehensive teaching and training programme, initiate couple of prospective clinical investigations and increased the repertoire of our diagnostic and surgical services. We were able to organise a couple of national workshops, primarily devoted to neurodiagnostics.

Dr. S. K. Ghosh, who worked with me at Lucknow, moved to the Radiology Department just prior to my arrival. He was assigned the responsibility of providing high quality service in spite of inadequate facilities. It is remarkable that at the time of the Twentieth Anniversary of Department of Neurosurgery and the inauguration of the Institute of Neurology, Madras in 1970, Dr. Ginde, in his guest lecture made the following statement:

"Of all the Centres, only three have developed fully: The Christian Medical college and Hospital at Vellore, The All India Institute of Medical Sciences, New Delhi and the Institute of Neurology, Madras. These three institutions are adequately equipped to enable all types of neuro-diagnostic investigations to be carried out and to cope up with all varieties of neurosurgical problems".

We were fortunate to have available the neuropathology expertise of Dr. Sriramachary, till such time as Dr. Subimal Roy took over this responsibility. Close links were established with the Department of Ophthalmology and ENT to initiate the nuclei of neuro-ophthalmology and neurootology. Soon after completion of his M. Ch., with the help of Prof. Kristiansen, arrangements were made for Brahm Prakash to go to Oslo to broaden the base of his training. He then joined the faculty in 1971. A similar course was followed by Dr. Ravi Bhatia. I take this opportunity to formally record, what I have privately said before, If I was asked to define an ideal team for the department, I could not have dreamt of a better one." Thus by 1974 we were able to establish an enviable,dedicated and loyal team.

We were still constrained in keeping pace with the rapid developments in the field owing to the perpetual shortage of funds for procuring state-of-the- art equipments. Microsurgery, stereotactic surgery, more sophisticated neuroradiological facilities were advancing the frontiers of neurosurgery. Our lucky break came through a contact of Prof. Gopinath in Finance Ministry, who prompted us to apply for a SIDA (Swedish International Development Agency) grant, which we ultimately received. This helped us in enhancing and upgrading both our diagnostic and thereapeutic facilities. We were also able to establish the first CT and microneurosurgical facilities in the country.

Around 1972,it was felt that the strengths in various neuroscience disciplines at the Institute had individually acquired high standards. It was therefore proposed to establish a full-fledged Neurosciences Centre. With usual bureaucratic delays finally in 1975, only the clinical component of our proposal (along with a similar one for cardiac sciences) was approved. I was appointed its Chief (A detailed history of the establishment of this Centre is soon to be published separately). The Centre as it exists now is housed in a seven story building with 180 nuerology, neurosurgery beds including 30 for intensive care. There are four fully equipped operation theatres. In addition there are independent Departments of Neuroanaesthesia and Neuroradiology and a Chair each for Neuropathology and Neurochemistry.

Prof. A. K. Banerji succeeded me as the Chief of the Centre in 1988. Currently Prof. M. C. Maheshwari is the Chief. Since my superannuation in 1990 the Centre has continued to grow in its facilities and all its functions. Prof. V. S. Mehta is the Head of the Department of Neurosurgery. Just to illustrate in the year 199'1, 2731 neurosurgical operations were performed, consisting of 66 I brain tumours, 151 intracranial aneurysms, 55 spinal tumours, 166 lumbar disc and 146 cervical discremovals, I22 operations for tracheal plexus and other peripherai nerve injuries and 341 CSF diversion operations. Stereotactic surgery, epilepsy surgery and surgery for stroke is now carried out by dedicated teams. MRI & MRS services are provided by a fully equipped facility. A Gamma-Knife is fully functional. So is a SPECT Interventional neuroradiology is practised routinely.

My association with the Centre remains uninterrupted purely for my academic interests. Initially as a Bhatnagar Fellow for five years (1990-95). I, alongwith Prof. Gomthi Gopinath continued ongoing research on experimental neural transplantation. As an Emeritis Professor of the Department I have the pleasure of being associated with the academic activities of the Department. However, on superannuation I voluntarily decided to give up professional work and devote myself to research and academic activities. In adition, I have been involved in a variety of science promotion activities through the various Academies of Science and Advisory Committees of scientific departments and councils. The Centre now has outstanding faculty in all its constituent departments and continues to march ahead. Though not dministratively linked with the Centre it is gratifying to note that the neuroscience activity in the parent departments of Anatomy. Physiology and Biochemistry continues to be of high quality.

My association with the Neurological Society of India

For the first time I attended the annual meeting of the Society in January 1962, at Calcutta I was admitted to the Society at that time. It was then still a rather small society, meeting jointly with the Association of Physicians of India. In 1972,I was unanimously elected Secretary of the Society in which capacity I served till 1977. During this period we initiated the

CME programme as an annual feature at the Society meeting, travel grants for postgraduate students to attend the annual meeting, travelling fellowship to visit other neurosurgical Centres in India. Several awards were also established. During these years Dr. Ramamurthi and I took up the responsibility of bringing out a Textbook of Neurosurgery, which has recently been revised. Prof Maheshwari and I also brought out a monograph Neurology India 25 Years containing abstracts of all the papers published in Neurology India. In 1984 I was elected Vice-President and in 1985 its President. In between for three years (1979-1981) I served as the Editor of Neurology India. It has been gratifying to watch the growth of the Society during these years.

Other opportunities to serve the cause of neurosciences

As a member of the expert group on neurosciences of ICMR, besides reviewing and monitoring research projects, it was possible to evolve some multicentric studies like "Epidemiology of Spontaneous Subarachnoid Haemorrhage" and "Head Injuries", as also "Stroke in Young". Later first as a member and then as Chairman of the Programme Advisory Committee on Neurobiology and Animal Behaviour of the Department of Science and Technology it was possible to steer the establishment of several national facilities a chronobiology unit at Madras, the National Neural Transplant Unit and the Human Foetal Repository at AIIMS, New Delhi, a Brain-bank and the Neuroinformatic Centre at NIMHANS, Bangalore, a Primate Behaviour Laboratory at CDRI, Lucknow. Five yearly courses on Neurobiology for clinical postgraduates were organized and four monographs, "Lectures in Neurobiology" were published.

with the creation of the Department of Biotechnology ten years ago, a Steering Committee on Neurobiology was established. I was invited to be first its member and soon afterwards its chairman. Among the several programmes organised under its aegis are a Brain storming Session in 1990, national seminars on neuroimmunology, neurotoxicology, neural network and neuromodelling. An NMR facility was established at AIIMS, jointly supported by DST, BT, ICMR, AIIMS. Amongst the two dozen major research projects, supported under the programme there were several which evolved as a result of discussions in the Committee. These include a multi-group programme on developmental neurobiology at AIIMS, a programme on neurogenetics at TIFR, a multi institutional programme on platelet receptors as markers of neurological and psychiatric disorders.

only recently with the help and co-operation of the members of the Steering committee it has been possible to get the approval of the Government (Department of Biotechnology) to establish a National Brain Research centre to commemorate the Golden Jubilee of our Independence. I consider it a real privilege to be invited to be the chairman of the Management Advisory Committee of this Centre.

During the period I was Secretary and later vice president of the Indian National Science Academy. I was able to initiate bilateral programmes on Developmental Neurobiology and Neural transplant in collaboration with the then USSR Academy in 1984. I organised a national workshop on Nutrition and Brain which was subsequently published as an Academy monograph.