

A SAGA OF
INDIAN NEUROLOGY

Reflections of Former Presidents

Editor

Dr. HV Srinivas



INDIAN ACADEMY OF NEUROLOGY

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INDIAN ACADEMY OF NEUROLOGY

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Reflections of Former Presidents

A book of historical interest published on completion of 20 years of Indian Academy of Neurology and released at Pune Conference in September 2011

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Preface

The Indian Academy of Neurology (IAN) is twenty years old. For an Association, twenty years is very young. In the last executive committee meeting of the Association, it was decided to celebrate the completion of the “teens of IAN” and to take stock of what we have achieved so far, what is being done and what should be done to improve the activities of the Academy. There will be a session dedicated to this topic during the forthcoming IANCON 2011 at Pune.

I suggested that we should compile a book containing the biographies of all the Presidents of IAN and also of the neurologists who were Presidents of Neurological Society of India (NSI) – our parent body. The committee immediately agreed to this suggestion and put me in charge of the project.

The Neurological Society of India was started in 1951 and neurologists, neurosurgeons and allied neuroscientists were members of this body. As the number of neurologists gradually increased, it was felt that the academic growth of neurology required a separate organization; this is how IAN was formed in 1991. Dr. Chopra has elaborated on this topic in his article on History of Indian Academy of Neurology. The IAN was started in 1992/93, and Dr. Krishnamoorthy Srinivas was the working committee President. In spite of my repeated requests, he declined to give his biographical write-up for this book.

The growth of neurology as a discipline in our country is interesting and fascinating. We need to record its history and publish it for

future generations. The growth is not uniform, since India is a vast country with different cultures and people with varied socio-economic backgrounds. Some of the biographies chronicled here give glimpses of the struggle to establish a department of neurology and of the difficulties faced in convincing the rest of the medical fraternity of the need for a separate department. The biographies of the pioneers, in this book, speak of the efforts and the ground work done by them. The contributors to this volume come from different parts of the country; there are regional differences and the experiences and impressions too are different.

The book also gives an insight into the honors, awards and achievements of our colleagues and senior members. Some biographies have been written with a personal touch, quoting interesting incidents from their personal life, apart from their academic careers. On reading some of these biographies, one gets a clear picture of sustained growth of the departments and the efforts which went into the process.

It was indeed a huge task writing to so many people and repeatedly reminding them to keep to their commitment. Of course, the electronic mail greatly simplified the procedure. I had made a general suggestion of what the biography should contain, but several members had their own methods – some of them sending the material in a CV format and some being very brief as though submitted in a hurry! I had to again plead with them to revise the write up, a suggestion which, fortunately, they accepted gladly. Several phone calls, requesting them for some more necessary information, also met with a positive response.

A few contributors wrote back asking whether they could exceed the word limit suggested; I had no problem about this. I do think, however, that, perhaps, if all the contributors had been able to give more of their time and their commitment to the task, we would have had an excellent account of the development of

Neurosciences, which would have been appreciated by readers. There was also a question: who would write the biographies of those who were deceased. It took some time and effort to locate the right people for the job.

The book is a compilation of biographies and provides an insight into the travails and tribulations of neurologists to establish the speciality of neurology in our country. The younger generation of neurologists, as well as future neurologists, will get a glimpse into the status of neurological sciences as it existed earlier.

The book also includes a great deal of important information, spanning twenty long years: a list of office bearers over the years, places where conferences were held, list of several orations delivered, including the topics on which the oration was given and the names of Fellows of IAN. In a sense, it will be a ready reckoner, besides being of historical interest.

My sincere thanks to all contributors for their willingness to share their experiences and to write about themselves. I also take this opportunity to thank those individuals who have prepared write-ups on those persons who are no more amidst us. I am extremely grateful to Dr. Rajasekharan Nair, with whom I had a fruitful discussion; I profited by his suggestions. Above all, he gave us permission to refer to his book in order to write some of the biographies, of course with due acknowledgement. I thank Dr. NH Wadia for readily agreeing to write a Foreword to this book. I must thank the President of IAN, Dr. Ashok Panagariya and Dr. Meshram, Honorary Secretary for their kind cooperation. My sincere thanks to Ms Meena Chandramohan, for copy-editing, Mr Mohan of Aditi Enterprises and Mrs Theresa Pinto for secretarial assistance.

Dr. H V Srinivas
Bangalore

8 September 2011

Foreword

A memoir is an account from the personal knowledge and experience of an individual and as such is his/her own history. This may be simply for record or for information of the future generations especially if the person has attained a prominent position in Society. On the other hand the memoir of someone who has reached great heights in public life like a leader, artist or scientist can have great historical value as it will reflect on events, personalities, situations and conditions prevailing at that time. An example which comes to mind is Jawaharlal Nehru's 'Discovery of India'.

Indian Neurology was an infant 60 years ago and its growth and development has been through its early founders and generations which followed. This book commissioned by the Executive Committee of the Indian Academy of Neurology (IAN) has a more focused value. It is a collection of memoirs of its Presidents since its inception 20 years ago and of President-neurologists of the parent Society - the Neurological Society of India (NSI) founded in 1951, with one neurologist member. It is felt that memoirs of these individuals who had reached high positions in both Societies would reflect truly the history of development of Neurology in India over 60 years. In that respect it is a companion to the earlier published 'Evolution of Neurosciences in India' edited by Prof. K Rajasekharan Nair in 1998 which covers the lives of all who were Presidents practicing what is generally called neurosciences.

Dr. H V Srinivas should be complimented because putting these memoirs together and editing them would have been an arduous task, though rewarding.

8 September 2011

Dr. N H Wadia
Mumbai

President's Message

I am delighted and honoured to be writing a few words on the occasion of the 20th Anniversary of the Indian Academy of Neurology as the President of the Academy.

Let me in the beginning pay my tributes to the most honoured pioneers, all over the country, who were able to lay a solid foundation to the organization of academicians and scientists in the field of neurosciences. Their contributions have been phenomenal, considering the limitations of the resources both in investigations and human support. They had par excellence clinical skills, which unfortunately are declining with the availability of modern gadgets and the mind set of investigation based treatment, which is known in the US as 'defensive medicine'.

This is also the time to remember the founder members of this powerful Neurologists' organization. The organization is passing through a phase of transition where the senior-most had given the reins to the senior ones, who now must pass it to the younger neurologists who have great potential for innovations and could match the speed of professional bodies other than those of medical sciences. They would perhaps be better advised to make the base broader and use the converging technology for research and take the specialty to a higher level for the benefit of mankind, not of-course forgetting the basic sciences.

All of us should gather together to retain some of the professional values but simultaneously not hesitate in learning and accepting newer modalities. I would also put a word of caution at this stage, that while evidence based medicine is of tremendous value, we should not ignore the experience based knowledge which allows us to remain open-minded and puts us in a dynamic mode.

This is essential to justify the dictum that practice of medicine is science as well as the art – a fact which maintains a great patient-doctor relationship.

8 September 2011

Dr. Ashok Panagariya

Secretary's Message

*T*he twentieth anniversary of IAN is an important milestone and I have great pleasure in writing a few words as Secretary of this prestigious organisation.

It is a time to move on, it is a time to change for the better, and it is a time to take on the challenges of Indian neurology head on.

It is time to look back, introspect, take lessons from the past and move ahead in the right direction to enhance the vision and mission of the Academy.

It is a time to learn about our heritage—the legacy the great neurologists have left behind.

Some members have been fortunate enough to work with the icons of Indian neurology and they will have vivid memories of those days.

This collection of biographic sketches of great neurologists, who made an indelible mark on the Academy and neurology speciality in our county, will not only help to change the mindset of younger neurologists but also lead them to find the purpose of life.

I wish the Academy a great future!

8 September 2011

Dr. Chandrashekhara Meshram

Executive Committee (2010–2011)

President



Dr. Ashok Panagariya

President Elect



Dr. P. Satishchandra

Past President



Dr. H. V. Srinivas

Past President



Dr. K. Radhakrishnan

Secretary



Dr. C.M. Meshram

Treasurer



Dr. Pramod Kr. Pal

Editor



Dr. Sanjeev V Thomas

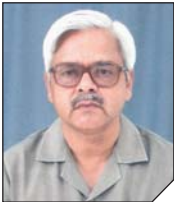
Executive Members



Dr. Nadir E. Bharucha



Dr. Subhash Kaul



Dr. Rakesh Shukla



Dr. Nirmal Surya

CME Conveners



Dr. Gagandeep Singh



Dr. Satish Khadilkar



Executive Committee Members of IAN with members of Local Organising Committee of IANCON 2011, 6th March 2011

PRESIDENTS–INDIAN ACADEMY OF NEUROLOGY

Dr. J S Chopra	1993–1994
Dr. Anupam Das Gupta	1994–1995
Dr. K Rajasekharan Nair	1995–1996
Dr. Zaheer Ahmed Sayeed	1996–1997
Dr. C U Velmurugendran	1997–1998
Dr. G K Ahuja	1998–1999
Dr. Devika Nag	1999–2000
Dr. D Nagaraja	2000–2001
Dr. S Venkataraman	2001–2002
Dr. S Prabhakar	2003–2004
Dr. S M Katrak	2004–2005
Dr. Ambar Chakravarty	2005–2006
Dr. R S Wadia	2006–2007
Dr. Madhuri Behari	2007–2008
Dr. H V Srinivas	2008–2009
Dr. K Radhakrishnan	2009–2010
Dr. Ashok Panagariya	2010–2011
Dr. P Satishchandra- President Elect	2010–2011

PRESIDENTS (Neurologists)–NEUROLOGICAL SOCIETY OF INDIA

Dr. T K Ghosh	1953
Dr. Menino De Souza	1957
Dr. E P Bharucha	1959
Dr. Baldev Singh	1962 and 1971
Dr. N H Wadia	1963
Dr. Anil D Desai	1967
Dr. K S Mani	1972
Dr. G Arjundas	1976
Dr. Vimala Virmani	1978
Dr. K Jagannathan	1980
Dr. S Janaki	1982
Dr. M Veeraraghava Reddy	1984
Dr. B S Singhal	1986
Dr. Shyamal Kumar Sen	1988
Dr. K. Srinivasan	1992 and 1993
Dr. Gourie-Devi	1995
Dr. K Rajasekharan Nair	1999
Dr. M C Maheshwari	2001
Dr. J S Chopra	2003
Dr. C U Velmurugendran	2005
Dr. S Prabhakar	2010

History of Indian Academy of Neurology

Dr. Jagjit S. Chopra

Past-President of Indian Academy of Neurology

India attained independence on 15th August 1947. Credit must be given to the Britishers for establishing a health structure in India by way of the allopathic system of rural dispensaries, tehsil and district hospitals, in addition to some medical schools and colleges. But they did not encourage postgraduate education in medicine. Medical graduates from India went to UK for postgraduate training and passed the membership in medicine (MRCP) and fellowship in surgery (FRCS) from the Royal Colleges of Physicians and Surgeons respectively and returned as specialists. Some others completed their postgraduation in India and then went abroad for further studies. However, super-specialisation in medical subjects such as neurology, cardiology, gastroenterology, endocrinology, nephrology, etc and surgical subjects such as neurosurgery, cardiothoracic surgery, urology, plastic surgery, etc remained a distant dream until almost 15 years after India attained independence. Some of the very senior doctors like Prof Jacob Chandy (neurosurgeon, Vellore), Prof. B Ramamurthy (neurosurgeon, Chennai), Prof. TK Ghosh (neurophysician, Kolkata), Dr. Baldev Singh (neurophysician, New Delhi), Dr. EP Bharucha, Dr. NH Wadia, Dr. Anil Desai (neurophysicians, Mumbai), Dr. G Arjun Das and DK Jagannathan (neurophysicians, Chennai), Dr. Ashok Bagchi (neurosurgeon, Kolkata) and Prof. PN Tandon (neurosurgeon, New Delhi) did their super-specialisation from UK

and Canada. In 1951, Dr. Jacob Chandy, Dr. B Ramamurthy, Dr. ST Narasimhan and Dr. Baldev Singh established the Neurological Society of India (NSI). It was started with less than half a dozen members which gradually grew larger as more neurosurgeons and neurologists trained abroad returned to India. As time passed, super-specialised training in neurosciences started at New Delhi (AIIMS), Vellore, Chennai, Chandigarh (PGI), Mumbai and later at Bangalore (NIMHANS) and Lucknow. Presently there are over 4 dozen training centres in neurosciences in India for super-specialisation in neurology and neurosurgery. The membership of NSI grew steadily and from 1964 onwards the Annual Conference of NSI became a routine academic affair. The NSI was registered at Bombay on 25 October 1969. Until 1963 the neurologists and neurosurgeons held their annual meetings as sub-sections of Association of Physicians of India and Association of Surgeons of India respectively. In due course the neurosurgeons, neurologists and allied neuroscientists like neuropathologists, neurobiochemists, neuroanaesthetists, neurophysiologists, etc also joined this organization. Scientific papers were presented at the Annual Conference of NSI along with lectures from invited speakers from India and abroad. In 1974, the Society started a regular one day CME programme along with the annual meetings.

Why need for a separate organisation for neurologists

Some of the neurologists started feeling that NSI was being dominated by neurosurgeons and also that higher standards in academic neurology particularly of international level could not be achieved unless there was a Society only for the neurologists. However, it was made clear that the neurologists would remain members of NSI and function along with their neurosurgical and allied colleagues but for more precise academic neurology and patient care in neurology a separate organisation was necessary.

Dr. JS Chopra, Professor and Head, Department of Neurology at Postgraduate Institute of Medical Education and Research, Chandigarh took the initiative in late eighties by writing to all neurologists in the country proposing for a separate organisation for the neurologists of India. The initial response was lukewarm. Senior neurologists who were angry at the idea of dividing the NSI were politely and firmly informed that it was not a revolt against the NSI and that the neurologists will continue as members of NSI. Personal telephones were made to a few, letters rewritten to those who did not respond but with not much results. It was not until the 14th World Congress of Neurology, held in October 1989, in New Delhi under the Chairmanship of Prof. EP Bharucha, that the determination to form a separate Society became stronger. This Congress, which was attended by over 3000 delegates from different countries, was a great success. About 40-50 neurologists who approved of the proposal met, on 16 December 1991, at Manipal (Karnataka) during the Annual Conference of NSI. They unanimously agreed for a separate Association of Neurologists. It was decided to name it the Indian Academy of Neurology (IAN) as per the suggestions of Dr. JS Chopra and Dr. JMK Murthy. The Newsletter to be circulated to all members would be called Bulletin of Indian Academy of Neurology. An adhoc Executive Committee (ExCo) was formed for further course of action. Dr. Krishnamoorthy Srinivas from Madras was chosen as the acting Chairman, Dr. M Gourie-Devi as acting Vice Chairman, Dr. JS Chopra as acting Secretary, and Dr. S Prabhakar as acting Treasurer. The Members of this adhoc ExCo were, Dr. NC Bora, Dr. SM Katrak, Dr. MC Maheswari, Dr. Devika Nag, Dr. NN Sarangi, Dr. ZA Sayeed, Dr. N Mehta Shaw and Dr. S Venkataraman. The Draft Constitution and bye-laws of IAN which were earlier framed by Dr. JS Chopra and Dr. S Prabhakar of PGIMER, Chandigarh were approved with modifications at the adhoc ExCo Meeting held at Manipal on 16 December 1991. This Constitution and bye-laws were published in

the Bulletin of the Academy, (vol. I, no 2) in August 1992. The Academy was registered as a Charitable Society at the Office of Registrar of Societies at Chandigarh on 10 September 1992. It was also resolved that a one day conference of IAN will be held at Ranchi in 1992 during the Annual Conference of NSI which was to be organised by Dr. KK Sinha. However, it was cancelled along with NSI meeting in view of some unfortunate events in some parts of India. Extraordinary adhoc Executive Meeting was held at AIIMS, New Delhi on 17 January 1993 which was attended by: Dr. K Srinivas (President), Dr. M Gourie-Devi (Vice President), Dr. JS Chopra (Secretary), Dr. S Prabhakar (Treasurer), Dr. MC Maheswari, Dr. S Venkataraman, Dr. KK Sinha (Members). As on 17 January 1993 there were 142 life members, 94 full members, 6 members from abroad, 4 life associate members and 81 associate members making a total of 327. The minutes of this meeting were published in the Bulletin of IAN in May 1992 (vol I, no 1). This Committee decided that the First Annual Conference be rescheduled for 1993. Some modifications were made to the Constitution also. The conference, which was held at Ranchi from 27–29 November and attended by some foreign delegates, also, was a great success. The mid-term adhoc Executive Meeting was held on 5 June 1993 at AIIMS, New Delhi where it was decided that the 2nd one-day Annual Conference of IAN would be held at New Delhi in 1994 along with International Conference of Organisation and Delivery of Neurological Services (ODNS) (a research group of World Federation of Neurology). The Committee was of the opinion that elections should be held for a regular Executive Committee of IAN. This meeting was attended by Dr. MC Maheswari, Dr. Devika Nag and Dr. NN Sarangi in addition to the executive committee officers. The elections were to be held for one post each of President and Vice President for a duration of one year and one post each of Secretary and Treasurer and three posts of members for a duration of three years. The 11 member Executive Committee would comprise of the President,

Vice President, Secretary, Treasurer, Editor, two past Presidents and four full Members/Fellows of the IAN. This committee also appointed Dr. Baldev Singh as the Patron. The adhoc ExCo nominated a Proterm Electoral Officer for conducting the first election of IAN. The last adhoc ExCo meeting was held on 27 November 1993 at Ranchi. The meeting was attended by Dr. SM Katrak, Dr. Devika Nag, Dr. NN Sarangi and Dr. S Venkataraman and the four Executive Committee officers. Ballot papers were printed at Chandigarh and circulated to the members by the acting Secretary. The last date for nominations to be received was 15 September 1992. Ballot papers were mailed in October 1992. The IAN awards for young neurologists (<45 years), IAN Travelling Fellowships and Queen Square Alumnus Association were also announced. The election results were published in the Bulletin of the Academy (vol. 2, no. 1, 1993). Dr. JS Chopra was unanimously elected as the Founder President, Dr. Anupam Das Gupta from Kolkata as Vice President. Dr. CU Velmurugendran from Chennai was the founder Honorary Secretary and Dr. S Prabhakar from Chandigarh its first Treasurer. The Executive Committee members were Dr. KK Sinha from Ranchi, Dr. K Srinivasan from Chennai, Dr. RS Wadia from Pune, Dr. S Venkataraman from New Delhi, Dr. JMK Murthy from Hyderabad and Dr. MM Mehndiratta from New Delhi. Two extra executive members were elected in place of the two past Presidents. This Executive Committee finalised the Constitution of IAN with further modifications. The most important clause in the constitution was, that its life/full time members will only be those who are qualified full time practicing neurologists and who have passed DM neurology or its equivalent degree from India or abroad. The allied specialists such as neurosurgeons, neuropathologists, neuroradiologists, neurochemists, neuroanaesthesiologists, etc can only become Associate/or Life Associate members. They will never hold any office in the Executive Committee, nor will they have any voting rights. This was to

preserve the purity of IAN to remain a body to be run and controlled only by the neurologists of India. The Executive Committee decided that it must have a scientific journal. The journal was named Annals of Indian Academy of Neurology. Dr. M Gourie-Devi, Director/Vice Chancellor, NIMHANS, Bangalore was the first Editor-in-Chief of this Journal who discharged her duties meticulously and was responsible for the regularity and indexing of this journal. Later Dr. D Nagaraja from NIMHANS became the Editor-in-Chief, followed by Dr. Sanjeev Thomas. The Annals of IAN is now indexed in Indian Medlars, Index Copernicus, Embase, Scirus, Science Direct, Science Citation Index and several other agencies. The adhoc ExCo had decided to have the following subsections of the Academy. i) cerebrovascular diseases, ii) neuromuscular diseases, iii) movement disorders, iv) clinical neurophysiology, v) epilepsy, vi) paediatric neurology, vii) neuroepidemiology and viii) headache. The Executive Committee finalised the names of conveners and members of each subsection. Although IAN requested the NSI to withdraw affiliation with World Federation of Neurology (WFN) in favour of IAN, they did not agree. Dr. JS Chopra negotiated with WFN for affiliation which was granted in 1995. For many years both IAN and NSI paid their annual membership fees to WFN. However in 1996 the Executive Committee of NSI withdrew their affiliation with WFN. Dr. M Gourie-Devi was requested to get affiliation with International Federation of Clinical Neurophysiology, which was granted in 1995, at Kyoto, Japan. The President during the ExCo meeting held on 28 September 1996 placed on record the efforts of Dr. JS Chopra and Dr. M Gourie-Devi. The 2nd Annual Congress of IAN under the duly elected Executive Committee was held along with the International Conference of Organisation and Delivery for Neurological Services (ODNS) from 19–22 November 1994 at New Delhi. The Executive Committee decided at this meeting that all Annual IAN conferences will be held in September every year. The first Presidential Oration

was delivered by Dr. JS Chopra and Dr. Donald H Silberburg of USA the first Dr. Baldev Singh Oration. Elections were also held for the next President elect of IAN. Gradually senior neurologists (who had initially opposed the creation of IAN) also joined as honored members. As of today the membership of IAN is nearing 1200 with almost 1000 full/life members.

The 3rd Annual Meeting of IAN was held in September 1995 at Chandigarh. The Executive Committee and General Body took very important decisions at this meeting. It was decided that the first day of the conference will be devoted to CME. Two more days will be for Orations, Symposium, Platform and Poster presentations. The Academy also decided that the Management of Queen Square, London be approached for short term training programme of three months for young neurologists at Queen Square at highly concessional rates. This decision was later approved by Queen Square. The names of the Founding Fellows was also finalized at this meeting. During the next Annual Conference in 1996 Fellowships were awarded to senior neurologists – a tradition that was continued thereafter. Dr. NH Wadia was asked to approach the Editor-in-Chief of the Journal 'Brain' with a request to supply this journal at concessional rates to the members of IAN. The IAN also approved the constitution of the Committees: i) Nomination Committee with Dr. JS Chopra as Chairman, Dr. CU Velmurugendran, Dr. GK Ahuja, Dr. S Venkataraman and Dr. RS Wadia as members ii) Constitution and bye-Laws Committee with Dr. Zaheer Ahmed Sayeed as Chairman and Dr. AV Srinivasan and Dr. SM Katrak as members iii) Finance Committee with Dr. NH Wadia as Chairman and Dr. G Arjundas and Dr. S Prabhakar as members iv) Publication Committee with Dr. JMK Murthy as Chairman and Dr. KK Sinha as Editor of the Journal v) Education Committee was headed by Dr. M Gourie-Devi and members were Dr. Meena Gupta and Dr. Ambar Chakravarty. During the Annual

Conference of 1996, Prof. JS Chopra was authorised by the Executive Committee, as approved by the GB, to invite Prof. James F. Toole, Prof. Richard L. Masland from USA, Prof. John Desmedt from Belgium, Prof. Jun Kimura from Japan, Prof. Frank Clifford Rose, Prof. Lord Walton of Detchant and Prof. CD Marsden from UK, Prof. A Vijjajiva from Thailand and Prof. Henry JM Barnett from Canada to become Honorary Corresponding Members of IAN to which all of them agreed to. In the GB meeting held on 28 September 1996, Dr. M Gourie-Devi agreed to collect Rs 50,000 for the Baldev Singh Oration the first of which was delivered in 1994. The GB also accepted the suggestion of Dr. JS Chopra regarding the Rules and the Protocol to be followed during Inaugural and Closing Ceremonies of the Annual Conferences of the Academy. This was published in the Bulletin; further modifications and new guidelines were published subsequently. Dr. D Nagaraja from NIMHANS, Bangalore was the second Honorary Secretary followed by Dr. S Prabhakar from Chandigarh. Later Dr. MM Mehndiratta from New Delhi was the Honorary Secretary for two terms of three years each. Dr. JMK Murthy from Hyderabad became the Treasurer after Dr. S Prabhakar. Both of them worked hard to make IAN a financially sound organisation.

The Annual Conference at Mumbai in 2006 was held under the Presidentship of Dr. RS Wadia of Pune, which was a great success. There was record attendance since it was jointly organised with Association of British neurologists who were astonished not only at the large attendance but more so because of the high academic standard of neurology practiced in India. Dr. JS Chopra who was honored at this conference, along with some other neurologists, remarked, "IAN was formed with the sole aim of high standards in academic, teaching, research and neuroservices of international level, if not more, and this has been achieved and its goals fulfilled". Young neurologists award and IAN Travelling Fellowships were also announced.

Orations

Apart from the annual Presidential Oration, funding for the following orations were received i) Dr. JS Chopra Oration ii) Dr. Anupam Das Gupta Oration which also included a Sun Pharma award iii) Dr. Baldev Singh Oration and Best Research Award initiated by neurologists of Chandigarh iv) Dr. NH Wadia Oration and v) Dr. Bhim Singal Oration. The diagnosis and management of some of the common neurological disorders like stroke, headache, Parkinson's disease, neuroinfections, common demyelating disorders which are necessarily and largely treated by primary care physicians and by internists can be substantially improved if only certain guidelines are made available. With this in mind the IAN has recently finalized "Guidelines for Management of Common Neurological Disorders".



Presidents of
INDIAN ACADEMY OF NEUROLOGY



DR. JAGJIT SINGH CHOPRA

President—Indian Academy of Neurology
(1993–1994)
President—Neurological Society of India
(2003)

*D*r. Jagjit Singh Chopra was born in June 1935 at Lahore (now in Pakistan) and received Medical Education from Govt. Medical College, Patiala (Punjab) and graduated in Medicine from Punjab University in 1959. He proceeded to UK after one year house job at Rajindra Hospital, Patiala attached to Govt. Medical College, Patiala. In UK he worked in Royal Belfast Hospital for Sick Children and later in Department of Medicine and Neurology at Royal Victoria Hospital, Belfast, Northern Ireland, both teaching hospitals. He passed Diploma in Child Health (DCH) from Royal College of Physicians, London in 1962 and obtained MRCP in (Edinburgh) in 1963 with specialization in neurology. He was the youngest Indian to get FRCP in 1969. He obtained Ph.D from Queen's University of Belfast, (UK) in 1967 and did research on diabetic neuropathy. He served in the Department of Neurology at the Royal Victoria Hospital, Belfast as Registrar and later as Senior Registrar and taught medical and postgraduate students training for MRCP. He also worked as Consultant Physician in Northern Ireland Health Services.

He joined as Assistant Professor and established the Department of Neurology at Postgraduate Institute of Medical Education and

Research (PGIMER), Chandigarh in November 1968 and was gradually elevated to the post of Professor of Neurology and remained its head until retirement in June 1995. Dr. Chopra was the Founder Director-Principal of Govt. Medical College and Hospital, Chandigarh with additional responsibility of Secretary, Medical Education and Research, Chandigarh Administration, on deputation from PGIMER from 1991 to 1995. He planned this Medical College and Hospital on modular basis which is now one of the best medical colleges of India and is ranked 14th in the country. Dr. Chopra trained many superspecialists in neurology, most of whom are heading Departments of Neurology at various establishments in India and abroad. He also trained many specialists in neurology for the Armed Forces of India. He retired in 1995 but continued as Professor Emeritus at PGIMER, Chandigarh. He was also selected as National Lecturer by University Grants Commission and has lectured at various medical institutions in the country. The National Academy of Medical Sciences (India), New Delhi also honored him with Emeritus Professorship.

Dr. Chopra contributed immensely in the field of neurosciences in India and globally. He has conducted cutting edge research in diseases of muscles, peripheral nerves, stroke and infections of the nervous system in UK and India. He has published over 235 scientific research papers in journals of national and international repute; was Editor for the book *Neurology in Tropics* and Editor-in-Chief for *Text Book of Neurology, Neurology India* – a publication of the Neurological Society of India for six years and *World Neurology* – a publication of World Federation of Neurology, from 1999 to 2009 (the only Asian to receive this distinct honor); has written over four dozen chapters in various books and monographs, both for books published in India and abroad. He has chaired several scientific sessions at international conferences.

Dr. Chopra is the Founder President of Indian Academy of Neurology and Past President of Neurological Society of India. He was the first Indian neurologist to be selected as the Secretary General of XIV World Congress of Neurology held in 1989 at New Delhi. He has been Visiting Professor / Guest speaker to 56 institutions, mostly abroad and on the Editorial Board of several journals of international repute.

He has been in the Selection Committee and Board of Studies of several institutions in the country. He has guided over a dozen graduates of PGIMER, Chandigarh for their PhD; has been a Member of Advisory Groups/Panels of Medical Education and Training of National Board of Examination, Indian Council of Medical Research (ICMR), NIHMANS, Bangalore, Indian Council of Child Welfare, Chandigarh, Department of Biotechnology under Ministry of Science and Technology, Govt. of India.

He has been Member of several International Scientific Programme Advisory Committees, Member of Medical Advisory Board, Charcot-Marie-Tooth Association, Upland, USA and Core Education Committee, XVIX World Congress of Neurology, Bangkok, Thailand, October 2009.

He has been nominated as a Senator by the Governor of Punjab in 2009, till date, to the Baba Farid University of Health Sciences, Faridkot, Punjab.

Dr. Chopra, has been an invited speaker at several international conferences held in India and abroad. His biography has been cited in WHO'S WHO India, International Book of Honour, Asia International Men and Women, American Biography Institute's Great Minds of 21st Century, Top 100 professionals 2010, International Biographical Centre, Cambridge, Marquis WHO'S

WHO, 2011 from 1980 over 30 times. He received the Man of Year 2001 award; Bharat Jyoti Award by India International Friendship Society.

Dr. Chopra has the distinction of having been associated with World Federation of Neurology from 1985 till date in various capacities. He has been Member, Executive Committee of International Federation of Clinical Neurophysiology; selected as Honorary Member of American Academy of Neurology and American Neurological Association; Member, London Medical Society; Association of British Neurologists, Ulster Medical Society, etc. He was elected Fellow of Medical Society of London and National Academy of Medical Sciences (India), New Delhi.

Dr. Chopra has received numerous awards and orations. Most prestigious among them are: Dr. BC Roy National Award, 9th Amrut Modi Research Award, Pelipu Perindevi Suriya Award, Pharmacological Society of India, MS Sen Oration Award, Indian Council of Medical Research, Life Time Achievement Award in Neurosciences, Madras NeuroTrust, Dr. MS Sanjeev Rao Oration, Dr. NK Gupta Oration, Dr. RS Allison Oration, Belfast, UK, Baldev Singh Orations, NSI and National Academy of Medical Sciences, New Delhi, 2010, 3rd KEM Oration, Department of Neurology, Govt. Medical College, Kota, Vishist Chikisha Gold Medal by Association of Chest Physicians of India, Award by PanArab Union of Neurological Societies, Emirates Medical Association and Emirates Neurological Society and Emirates League against Epilepsy, Award by Pakistan Neurological Society and Epilepsy Association of Pakistan.

He was awarded Padma Bhushan in 2008 by the President of India and Parman Patra by S. Prakash Singh Badal, Chief Minister, Punjab in 2007.

He is married to Mrs Amarjit Chopra, who has done her MA from University of Delhi; and Diploma in Education at Queens University, Belfast, Ireland, UK. They have two children a daughter – Dr. Brinder Chopra who has done MD in Clinical Biochemistry from Punjab University and is presently working as Associate Professor of Biochemistry, Gian Sagar Institute of Medical Sciences, Patiala and is married to Dr. Sukhpreet Singh (MS in General Surgery) and have two children. His son Dr. Harvin S Chopra is trained in Radiodiagnosis (MD) from Medical University of Innsbruck, Austria and is married to Natasha who is working as Administrator in a private hospital near Chandigarh.

Dr. Chopra is currently working in (i) Silver Oaks Hospital, Mohali Tricity, Chandigarh and (ii) Landmark Hospital, Chandigarh.





DR. ANUPAM DASGUPTA

President—Indian Academy of Neurology
(1994–1995)

I was born in Kolkata on 1 October 1934. I completed my premedical education at Presidency College, Kolkata and joined Calcutta Medical College in 1951. Throughout my education I received scholarships and also won several gold medals. In the final MBBS examination I stood first in the University. Subsequently I did Ph.D under Dr. JA Simpson in Northern General Hospital under the Edinburgh University. I was the only person from Asia to receive the Edinburgh University Fellowship to do Ph.D in EMG and Neurophysiology. In 1959, I passed MRCP from Edinburgh with neurology as a special subject in my first attempt. In 1970, at the age of 36, I was the youngest Fellow from Asia to be awarded FRCP (Edinburgh). In 1972, I was awarded FRCP (USA), and in 2004, FRCP (London).

Training

My main training in neurology was under JA Simpson in Northern General Hospital, a wing of Edinburgh University, for over 3 years; and in Mount Sinai Hospital, Chicago (a wing of Chicago Medical School) for two years.

After 20 years of service, I took voluntary retirement as Professor and Head of Neurology Department of NRS Hospital, Kolkata in 1990. I have trained several MBBS, MD (Medicine) and DM (Neurology) students and was examiner for MBBS, MD and DM, DNB and Ph.D courses of many Indian Universities.

Contribution to neurosciences

I still take active part in developing neurology in eastern India. I have about 100 publications in national and international journals to my credit and have contributed chapters on neurology in textbooks and other books (about fifteen in number) and was the Associate Editor, Journal of Neurology (An NSI publication). Besides being the President of Indian Academy of Neurology, I was also the President of Indian Epilepsy Association (Central Office) and (WB chapter); was ex. President of Rotary Club of Calcutta (South Central).

I am a recipient of the lifetime award for services in neurology from: Indian Academy of Neurology along with Asian-Oceanian Neurology Society; Indo-Canadian Neurology Society along with Calcutta Neurological Society and Madras Neuro Trust. For academic upliftment, I have contributed to scholarships to merit students to 10 schools in 24 parganas in West Bengal for the last 10 years. I have also contributed money to poor students, and helped to lay water supply lines, latrines, hostels in 10 schools in West Bengal and one in Bangladesh. I have been conducting medical camps in West Bengal 3-4 times a year for the last 10 years, and the money earned is given away to poor patients to buy medicines and to poor students to buy books and pay examination fees.

I am married to Chitra Dasgupta, a homemaker and am having two sons. The elder son has done his MBA from Rochester

University, USA and is now working in Buffalo, USA as Senior Vice President in a bank. The second son has passed MD, MRCP and is now working in UK as CCST.

I am presently working as Head & Director of Neuroscience (Medicine), AMRI Hospital, Dhakuria, Kolkata.





DR. K RAJASEKHARAN NAIR

President—Indian Academy of Neurology
(1995–1996)

President—Neurological Society of India
(1999)

I tend to always miss the pleasant occasions in my life. I returned from USA after a holiday on 7 July 1998 and had no idea why everybody I met at the Trivandrum airport congratulated me warmly. I was groggy because of severe jet lag and hence did not enquire the reason for the exuberant welcome. Only the next day when I went to Cosmopolitan Hospital, Trivandrum, I was told that I was selected as the Best Doctor in the State for the year 1998 by the Government of Kerala and the award, citation and a cash prize of Rs.10,000/- were ceremoniously given to my Hospital in my absence and all the local papers were full of write ups about it.

In fact the same sort of incident occurred when I was elected Vice-President of the Neurological Society of India in 1997. I could not attend the session though every arrangement was made. By a trick played by a private airline I was stranded in Trivandrum airport.

I could perhaps narrate a lot more similar examples but then such is the way of life. I was taught fairly early in life to take these mishaps in my stride and to keep smiling.

Training in Trivandrum

I was born on 9 December 1940 in Trivandrum. My father, Dr. Suranad Kunjan Pillai, was a reknown Malayalam writer and respected scholar in English, Sanskrit and Malayalam. He was the only Keralite who passed MA in all these languages with honours from Madras University in early 1930's. My entire educational career was overshadowed by his achievements.

In fact, by the time I reached college my ambition to become a writer in Malayalam evaporated as by then I knew that I would always be overshadowed by him. Fortunately for me I got admission in Trivandrum Medical College after B.Sc in 1959. I was the university rank holder for my B.Sc degree. Though I was very keen to pursue my literary career I kept it hidden from everyone. I wrote under various pseudonyms.

Trivandrum Medical College, started in 1951, is the oldest Medical College in Kerala and I belonged to the 1960 batch, incidentally the Neurological Society of India was also started in the same year.

I was tutored by Prof. Young (Anatomy), Prof. Grennel (Pharmacology), Prof. Raghavachari (Surgeon) and Prof. Ananthachary (Physician). But right from the beginning I was the disciple of a crazy genius, Prof. GK Warriar, a physician who was interested in neurology.

I should add some odd facets of this great man. He was trained by great British neurologists during his stay in UK for his MRCP. Most of the time he was under the influence of drugs (he was addicted to a lot of them) but it was a surprise that he could function as a brilliant doctor, spot diagnostician, preceptor of facts, sifter of unwanted data, theoretician, deep thinker, ethanolic, musician,

writer and Kathakali exponent. I had the luck, later in life, to be with better known neurologists both in India and UK but with total honesty I feel that he surpassed them all in his clinical acumen. His ability of spot diagnosis was legendary and I picked up the knack of this technique which came useful to me all through my life.

After my MBBS and MD in General Medicine I joined Trivandrum Medical College as a tutor in Medicine (equivalent to the present lecturer) and was promoted as Assistant Professor of Medicine in 1970.

It was in mid 1960's that post-postgraduate courses in various medical disciplines were started in selected centres in India. The very idea itself was new, teachers were few, and none had any concrete idea of a structured course. Though there were few well trained teachers in these subjects in excellent centres, many others had only scanty training for brief periods in obscure hospitals in UK or USA. In fact the very concept of such postgraduate courses was an anathema for many foreign scientists. I still remember that there was a vitriolic comment in a very respected American journal against such an experiment. But the first batch of the DM/MCh candidates were out by late 1960's.

All India Institute of Medical Sciences

Though I got admission to DM Neurology at Madras Medical College in 1970, I did not join there. Instead, I appeared for the selection at All India Institute of Medical Sciences, New Delhi where also I was the only one who got admission. I chose AIIMS because of its halo of great respectability provided by none other than Prof. Baldev Singh. Only after joining I came to know that he had already moved out to neurophysiology and that he was basically and truly a great researcher than a clinician.

The New Delhi life was really alien to me but I adjusted to that— thanks to my teachers and my seniors. The plethora of clinical material which I had already seen in a Moffusil Medical College, Trivandrum was found lacking here but the keenness to probe into the pathogenesis and biochemistry of neurological illnesses fascinated me.

The plight of the postgraduate students caught between the warring teachers in the Institute during that time was terrible. Further it was revolting to see the experiments being conducted on animals but I had no way of escaping. Adding to the strain of a very tight and demanding educational programme was the financial and social difficulties I caused to my family.

I was the first to pass DM Neurology after just 2 years, as I was on deputation from Kerala service and was given just 2 years leave. All other DM students were allowed to take the exam only after three and half to four years. Prof. Pathak and Dr. Virmani fortunately allowed me to take the exam after 2 years but it was not an easy task.

Fortunately, the clinical examination was easy. At the end of the grand viva on being asked where I had picked up the excellent clinical approach, I answered that I learnt it from Dr. GK Warriar. I could see the faces of my teachers darken across the table. Institute examinations those days were peculiar in that all the faculty members would be present during the examination though only the examiners would ask questions. Even today I still congratulate myself for having told the truth at that time.

After the results Dr. Pathak and Dr. Virmani urged me to take up a faculty post at the Institute. There was acute scarcity of teachers in the Department of Neurology then. But as I did not want to stay

in Delhi I did not take up the post. Had I chosen a job there, probably I would still have been in service, uprooted, unsettled and ambitious and fighting with someone or the other. Malayalees are a peculiar lot, never happy till they return to Kerala.

Calicut days

Fate plays odd tricks with everyone. I had managed to get a placement immediately after my DM for further training in Copenhagen, Denmark (at that time it was the Mecca for electrophysiology training). When I requested the Principal of Calicut Medical College for an extension of leave, I got a severe warning and was asked to return immediately with a threat that they would otherwise remove me from service.

My Calicut days began unceremoniously in May 1973. My designation was changed to Assistant Professor of Neurology from Assistant Professor of Medicine. With the help of Prof. Warriar, I could start a small medical neurology unit with 8 beds in Calicut Medical College the first in the Malabar region.

In all medical colleges in India the superspeciality departments were under the parent departments of medicine or surgery and had no equipments. But in two years, I could get an EEG and a 2 channel EMG machine. The radiology sessions were killing. We were allotted just 2 morning sessions in a week to do direct puncture carotid angiograms, pneumoencephalograms or myelograms and in this time we had to do as many investigations as possible. It seems unreal to me now, but we would do 3 or 4 angios, one or two PEGs and a myelogram per session.

Perhaps our postgraduates of the present day have no idea of the difficulty we had for doing the investigations. If we suspected a

posterior fossa lesion and the carotid angio would either be normal or at best might show a hydrocephalus which would mean nothing. We had to do a fractional PEG and an autotomogram and both were, to say the least, very painful.

My colleague neurosurgeons were Dr. CA Rajan and Dr. KM John consulted for patient. Dr. John delayed treatment to patients with suspected posterior fossa lesions requiring ventriculograms. I was therefore forced to devise a technique for doing ventriculograms without a burr hole. I was very proud when my paper on the easy technique of ventriculography was published, but now I know how crude and traumatic that procedure was as far as the patients were concerned.

Treating dozens of neurology patients every day left us with little time for any research work. But then I had an inkling that the so called statistically oriented research work was bit impossible in our "one man unit". But there were plenty of unsolved problems not discussed even once in my DM days.

Some of them were very peculiar. The girl who came in to my room hobbling on bare ends of her tibia and fibula with a foot hanging by the skin to her ankle was a shock to see. She was sent from a nearby Leprosy Centre to check as to why she was not improving with dapsons. What I found in her was a bilaterally symmetrical pure sensory neuropathy. It was confirmed by nerve conduction studies as well. In a short while I could collect a few more similar cases. When I presented this material at the Chandigarh Conference of NSI in 1976, a collective gasp emanated when the photograph of the girl's foot was shown. My papers on acrodystrophic neuropathy gave me the confidence that collecting clinical material would be rewarding enough.

This was followed by a paper about a small group of patients with clinically definite multiple sclerosis which also drew adequate attention. In fact that paper is being quoted even now as it is one of the initial papers on MS from South India.

Even single case reports if adequately documented would be relevant. Our papers on 'Transient ocular bobbing in brain stem encephalitis' and 'isolated brainstem abscess' demonstrated this point. Slowly my colleagues began to accept the concept of superspeciality services.

As there were more than 5 of us in the neurosciences field in Kerala it was thought that we should form a small group and thus in 1976 the Kerala Institute of Neuroscientists (KINS) was formed. We were able to shoulder the responsibility and conduct an annual meeting of the Neurological Society of India in Trivandrum in 1978 which turned out to be a grand success.

In November 1978, I received two letters one informing that I was selected for the Commonwealth Scholarship for further training in neurology under senior teachers like Prof. Simpson of Glasgow, Prof. John Walton of New Castle upon Tyne and the other from the University of Garyounis, Benghazi, Libya asking me to establish a Department of Neurology and to head the same.

I was in a dilemma as to how I could combine these but fortunately the University of Garyounis agreed to sponsor me for the training if I could break this training in to 3 months sessions each so that I could complete the 12 month training, if I joined the University immediately. I wrote to the Commonwealth Fellowship authorities who were willing for the same so long as the financial commitments were borne by the Garyounis University.

Despite all the warnings from my colleagues against going to Libya, I accepted this combined offer and mercifully both turned out excellently. The treatment I had at UK was pleasant. I wanted to learn a lot more about electrophysiology including single fibre EMG. Soon my interest in sfEMG waned.

My period in Benghazi was useful in another way as well as I could set up my second neurology unit there and could organize an excellent teaching facility in neurology at that University which was later converted into a National Reference Centre for Neurology in Libya. My three year stint there gained me a lot of friends. I must concede that I had a wonderful time in Benghazi and I could publish a series of papers about Neurology in Libya in their journal. After three years I returned to Trivandrum Medical College to Head the Department of Neurology.

Back to Trivandrum

The Department of Neurology at Trivandrum Medical College was started (1971-2) one year earlier than Calicut Medical College. When I joined, it was in a moribund shape. What I inherited was just 6 beds in the male ward and 4 in the female ward and an old EEG lab with a dilapidated machine. I had to prove myself in the new surrounding. With the help of friends in the administration, the Government and the University of Kerala, within a year I could establish a full-fledged department with 20 beds, a new ward for strokes and a few new equipments. The first batch of DM course was started in 1983. Since then there was no looking back.

I was promoted as the Director-Professor of Neurology in 1987, the highest academic position a medical teacher could achieve in Kerala. Though another promotion as Principal of a Medical College was thrust on me, luckily I relinquished that administrative job.

I concentrated on my academic, teaching and research jobs which gave me a lot of recognition both in India and abroad. My students by then had already established as good clinical teachers which gave me a lot of satisfaction.

Evolution of neurology in Kerala

The Department of Neurology at Medical College, Calicut started in 1973 and the Department of Neurology at University of Garyounis, Banghazi, Libya in 1979-1982. The Department of Neurology was upgraded to postgraduate Center at Medical College, Trivandrum. I was one of the 2 who first took DM Neurology from Kerala. I had the good fortune to start/develop the Departments at both Calicut and Trivandrum.

The main topic of interest during the initial period was peripheral neuropathy. Later my interest shifted to movement disorders and cognitive neurology.

I started the first DM Neurology course in Kerala under the Directorate of Medical Education and trained several candidates in DM Neurology, Dip NB Neurology and PhD. I have 120 papers in Indian and international journals. I have published several books on history of medicine, neurosemantics, etc. I have also published two books on 'Evolution of neurosciences in India, (1999) and 'Evolution of modern medicine in Kerala' (1997) and more than 150 articles and 5 books in Malayalam. The first ever novel on Environmental issue in Malayalam 'Oru Puzhayude Katha' (The story of a River) gained great appreciation. Subsequent publications gained acclaim as the best book published in Malayalam in 2005, 2007 and 2008.

Apart from Academic work, I was an examiner for DM Neurology in several major neurological centers including AIIMS, New Delhi and NIMHANS, Bangalore.

I have delivered a number of orations viz the NN Gupta Oration, Lucknow, Sarabai Oration, RN Chatterjee Oration, Cuttuck, etc. From the beginning of my career I knew that I had to be conversant with everything in neurology – whether it was cerebrovascular disease, cognitive neurology, demyelinating syndromes or molecular neurology for teaching and routine practice. The business of Jack of all trades leaves very much to be desired but then there was no choice. In fact I started my career with a lot of interest in cognitive neurology (my paper on speech dysfunction was the first of its kind in India). Out of sheer necessity I had to study paediatric neurology, degenerative diseases, neurovirology, neurochemistry, genetics, geriatric neurology, etc for teaching PGs. The series of CMEs we have conducted in Trivandrum (so far we have conducted 30 CMEs, a few of them were national in nature) actually gave us a lot of new ideas in different subsections of neurology. Gradually as the staff strength of the department increased I could afford to spend a more time on a subject which I really liked – movement disorders. It was pleasant to interact with those with similar interest from different parts of India and abroad.

But it was my hobby which brought me a lot of friends. My interest in history of medicine was an inherited affair and soon I found that it could become an all consummative interest. My books Charcot and his pupils, Despots, Diseases Doctor, the Destiny of Mankind, etc had unexpected rave reviews in snobbish journals. Another one on semantics equally earned a lot of credit.

Neurological Society of India

I first attended the NSI conference in 1972 at Lucknow. Since then I have been attending almost all annual conferences of the NSI.

However, I remember distinctly that right from the 1972 session onwards there were a few neurologists who were keen to form a separate society for the medical neurologists. The idea gradually became more and more stronger as years went by. In 1991 at the Manipal conference the idea germinated as the Indian Academy of Neurology. An interim executive committee was formed with Dr. Krishnamoorthy Srinivas, Dr. JS Chopra and a few others. The formal elections took place later on, when Dr. JS Chopra as the President and Dr. CU Velmurugendran as Secretary were returned. Dr. Anupam Das Gupta succeeded Dr. Chopra. I was elected as the Vice President after Dr. Anupam Das Gupta. In the absence of Dr. Das Gupta I had to function as acting President for the Chandigarh session in 1995. My term as President of IAN for 1996 was a very pleasant one. Dr. Velmurugendran continued as the Secretary. My presidential oration at the Indian Academy of Neurology in 1996 at Bangalore was titled "The travails of an Indian neurologist". In that lecture I covered my research work spanned over a period from 1970 to 1996.

Though the neurologists formed a separate society a large number of us were quite unhappy to part with our previous colleagues. We decided that we would actively continue in both the organizations and contribute as much as possible. It is with this idea that I contested for the election for the post of Vice President of NSI. I was really pleased at the great support I received from the neurosurgeons and neurologists from all over India. I would be taking over the office from Prof. VK Kak at the 47th Annual Conference of NSI at my home town, Trivandrum.

Retirement

Kerala is the only State in India where the retirement age is still 55 years, though life expectancy in Kerala has already crossed 71 years. When I retired from the Medical College service in April 1996, it was a pleasant affair for me.

I still maintain very close contacts with the medical college hospital though working in a private hospital where my colleagues are my old friends from Trivandrum Medical College Hospital.

Unashamedly I am an Indian first and foremost and then a Malayali. I happen to belong to one of the first few batches of fully Indian trained neurologists. Though I had the luck of further training abroad also, I still feel that what I learned from my small place is far more worthy.

I am indeed proud that I have had lavish support from all over India for projecting only Indian material. I was surprised to see that I had wholehearted support from my colleagues from all over India when I contested for election to both Indian Academy of Neurology and Neurological Society of India. With total humbleness and humility I still hold on to the view that what is more important in India, is the work done in India itself. Perhaps others may not agree with me.

Content to breathe my native air

During my postgraduate training period in 1966 there was a time when we had no stipend or financial support from the Government. Two of my colleagues and myself decided to go to UK for our MRCP so that we would get jobs as well during our training period. Within a month of applying all of us got job offers from UK.

I was skeptical to abandon my MD course in Trivandrum so I went to my dad to find out his opinion. He as usual was in his library before a heap of books. When I told him about my dilemma, he said very quietly “Yes. You may go. Since you are our only son, your mother will be worried. That does not matter. I will console her. But then you should know something very definite. If you are good, people and honours will come to you. If you are not, you will go after them. Decide what you want first and then come back and tell me.” I was shocked to hear that. One of my colleagues asked me “How do you think that MRCP will come to you if you do not go to UK?” Knowing that my dad already refused Professorship in Linguistics in UK and USSR and had remained in Trivandrum itself to complete his magnum opus, the Malayalam Lexicon, I thought that I would continue my studies in Trivandrum. I am not sorry that I did so. I received honorary MRCP and FRCP for the work which I did in Trivandrum itself.

He taught me something more which I could never copy in my life. He taught me to have an “Ana sakthi”, Nirahankara, and “Nir ma mathuam”. They are difficult to practice—but he showed me quietly that they can be done. To my knowledge he is the only one who got his ‘Padmasree’ and D. Litt degrees from different Universities by post.

After my retirement from Government service as Director/ Professor of Neurology at Medical College Trivandrum I joined Cosmopolitan Hospital, Trivandrum. The patients who came to medical college were poor and downtrodden. They could not afford costly treatment. In earlier days neurological investigations were primitive like carotid angiograms, pneumoencephalograms and myelograms. I must admit that they were very cruel and painful investigations which I would not recommend to any patient now. But by early 1980’s the pattern of investigations changed to CT

and MRI scans. No one would believe the difficulty we had to study muscle and nerve disorders with an oscilloscope as the monitor. We had practically no way other than polaroid cameras to capture the rapid passing of the waves. As you can guess we seldom got polaroid films. But by late 1980's personal computers became so common and made inways in to all medical investigations. The unbelievable (at least for us) change was phenomenal. The tiny time gaps of the wave forms in brain stem auditory evoked potential and visual evoked potentials could be studied. Earlier a trained neurologist was required to do these investigations but now technicians promptly do them with more dexterity. We, the then teachers, had to study the intricacies of these investigations to teach them. By teaching we learned more. In fact 1990's were the golden years for us. We continue to learn and pass on our knowledge to our youngsters whenever possible.

Even 2000's were great days for us. We participated in seminars, CMEs, local and national conferences where we met our old friends and students. Of course we learned the new technologies and suddenly we noticed that neurologists were venturing boldly to interventional techniques and implantations. We sometimes are reminded of the lobotomist Walter Freeman (whose motto was to send the mad people back to their home work) Irving Cooper (whose surgical techniques for Parkinsonism was a momentous success story) and others. We agree that those primitive techniques have given ways to very sophisticated and controlled techniques with absolute precision and unquestionable results. But we need critics as well (I am reminded of Landau whose seminal article in neurology under the editorship of Prof. Robert Daroff 'Datatop bottoms out—Pyramid sale in a bucket shop, which exposed the tall claims of Selegiline to reasonable state).

*If you can talk with crowds and keep your virtue,
' Or walk with Kings - nor lose the common touch,*

I must conclude that I had wonderful days. Like Kipling said I walked with kings and queens of neurosciences—Prof Baldev Singh, Prof Jacob Chandy, Prof B. Ramamurthy—my teachers and senior friends who started initially a Society for neuroscientists—the Neurological Society of India with just four members! Our youngsters could not understand the prestige and honor our senior friends had in India.

History is important. I for one would be sad if somebody studies hereditary sensory neuropathies in India without recognizing the work which I did long back during my Calicut days. Prof. Wadia's seminal contribution to the neurological illness produced by heavy metals, Prof. Devika Nag's papers on toxicological studies, Prof. Jagannathan's studies on Madras pattern motor neuron disease, the stereotaxic surgical studies on Parkinsonism by Prof. Ramamurthy and his team, Dr. KS Mani's studies on hot water epilepsy, Dr. Vimani's and Dr. Chopra's contribution on localized varieties of motor neuron diseases are of similar nature. None of them became office bearers of IAN but their eminence in the field of neurology is to be recognized. When a new paper is published from a sophisticated center in India I as a member of the editorial/scrutinizing committee often see that papers from western countries are quoted with great admiration without even mentioning the Indian studies. Unless and until we try to recognize our own merits we are doomed.

My childhood background was mainly literary and hence naturally I have a flair for literary work as well. Hence after retirement I have published about 150 papers in Malayalam particularly on

pathography and eleven books. All of them have won literary appreciation.

Life is so unpredictable and many times we are forced to accept our share of fortunes and miseries.

I am married to Indira Nair and have two children—a son Girish who is MBA executive and a daughter Dr. Manju Chandran who is an MD, FACP.

I am currently working at Cosmopolitan Hospital, Trivandrum and am an Emeritus Professor at Medical College, Trivandrum.





DR. ZAHEER AHMED SAYEED

President—Indian Academy of Neurology
(1996–97)

*D*r. Zaheer Ahmed was born on 22 December 1938 in Chennai into the Sayeed family whose members served the medical and legal professions, in addition to contributions to the educational, judicial and the political processes of Tamil Nadu, and the country.

Dr. Zaheer completed his MBBS in 1961 and MD (Medicine) in 1965 from Madras Medical College, University of Madras and was the recipient of the Hobart Prize in Medicine and Nageswara Rao Panthulu Gold Medal. His formal neurological training was at the Montreal Neurological Institute, Mc Gill University, Canada, under the tutelage of Professors Wilder Penfield, Jasper, Theodore Rasmussen, Francis Mc Naughton and Pierre Gloor. After completion of the training he was elected Fellow of the Royal College of Physicians of Canada in 1969. This was followed by Faculty positions in the Departments of Neurology at the North Western University, University of Illinois, and the Cook County Hospital all at Chicago, Illinois, USA.

On his return to India in 1972 he joined the Institute of Neurology, Madras where he was further mentored by Professors B. Ramamurthy and G. Arjundas.

Some of his notable contributions include the use of dopamine receptor blockers in the control of chorea, categorisation of anterior horn cell disease in South India, inclusive of pioneering work to elucidate the origins of electrical potentials-periodic complexes in subacute sclerosing panencephalitis, determining their site of origin by simultaneous cortical, brain stem and surface recordings in stereotaxically placed depth electrodes and surface EEG.

He was the earliest to document that an extra temporal focus in several patients presenting with features of temporal lobe seizures suggests the involvement of temporal lobe as an “on the way” phenomenon in the march of the electrical ictus, when in fact the electrical activity started elsewhere. He was the first to document the neurophysiological changes in the peripheral nerves of neurologically asymptomatic diabetes mellitus, to demonstrate the benefits of thrombolysis in acute ischemic insults to the brain, usefulness of plasmapheresis/IVIGG in dysimmune neurological states involving the peripheral nerves radicles, muscle end plates and continues even now to pursue all these interests vigorously.

Dr. Zaheer is the Founder Fellow of the Indian Academy of Neurology, Fellow of the American Academy of Neurology, American College of Physicians and Academy of Medical Sciences, India. He was involved in the establishment of Departments of Neurology and Clinical Neurophysiology at The Apollo Hospitals, The Government Roypettah Hospital, The Southern Railway Hospital, Perambur, and The MIOT Hospital all at Chennai. He continues to be the Treasurer of the Indian Stroke Society and of the Indian Epilepsy Association, Tamil Nadu Chapter.

He has been Honorary Professor of Neurology at the Institute of Neurology Madras, Madras Medical College, University of Madras and Neurologist, Government General Hospital for more than twenty-five years and has practised the speciality of neurology and neurophysiology for four and a half decades. He has organised six neurophysiology workshops and has been a resource person for several more. He has to his credit nearly 80 publications inclusive of chapters in books and monographs. He has been the recipient of several awards and orations – in particular are Prof. NN Gupta Oration, Arjundas oration, Laxmipathy oration – at the Institute of Neurology, Chennai, Christian Medical College, Vellore, Indian Academy of Neurology, Academy of Medical Sciences, India and King George Medical School, Lucknow and Department of Neurological Sciences, Voluntary Health Services Hospital, Chennai. Most recently he received the life time achievement Award 2009 of the Madras Neuro Trust, the Neurocon Award 2010 and the Achanta Lakshmi pathy Oration 2010.

He is married to Bader Sayeed who is a lawyer, a former MLA and an educationist on the Board of Southern India Educational Trust. She runs a NGO called Roshni which administers a school and is a Social Activist involved with economically backward women and children. She was Advocate General, High Court of Madras. They have two children - Furhan Ahmed Sayeed who is the Vice-President in HSBC Bank, Bombay and a daughter who is a lawyer. They have two grand children.

Dr. Zaheer currently works in the Department of Neurology, Apollo Hospital, Chennai and at his private clinic.





DR. CU VELMURUGENDRAN

President—Indian Academy of Neurology
(1997–1998)

President—Neurological Society of India
(2005)

*D*r. CU Velmurugendran, was born on 10 May 1940 into an illustrious family of physicians. His grandfather Dr. C Murugesu Mudaliar and father Dr. CS Uthamaroyan were awarded the National Award “Vaidhya Ratna”. His mother Mrs. Rajakantheswari was brought him up with love and discipline, was instrumental for his higher studies.

He did his schooling at Kellett High School, Triplicane and his intermediate at Layola College where he passed out with a silver medal for his academic excellence in 1957. He graduated from the prestigious Madras Medical College (MMC) in 1962, completed MD in 1966 and DM in Neurology in 1969. While at Madras Medical College, he trained under Dr. Rathnavel Subramanian, whom he considers as his mentor and the inspirational force for him taking up neurology. He was trained in neurology by Dr. B Ramamurthy, who was the founder of the Department of Neurosciences in India. His other teachers include Dr. Jagannathan and Dr. Arjundas who are pioneers in the field of neurology. He was awarded a WHO fellowship for specialized training in clinical neurology and electrophysiology in National Hospital, Queen Square, London University, London in 1974–1975. During this period he had the

opportunity to work with internationally acclaimed neurologists including Dr. William Cobb, Dr. Reginald Kelly, Dr. Dennis Williams, Dr. Hallpike, Dr. McCardle, to name a few.

He worked as an Assistant Prof of Medicine, and Associate Prof Neurology at Madras Medical College He helped setup the department of Neurology at Stanley Medical College, and established training in DM and PhD. He has trained several postgraduates in medicine, neurology, psychiatry, and neurosurgery and has been an examiner for these courses. He has served as member, Board of Studies and Academic Senate at Madras University, Tamilnadu MGR Medical University, NIMHANS and BHU. He has also served in the selection committee in national organizations like AIIMS and NIMHANS. He was on the editorial board of Neurology India, IAN and Annals of Indian Academy of Neurology.

He has published about 60 scientific papers and presented more than 120 papers in national and international journals. He has authored a book titled "Diseases of the spinal cord" edited by E Critchly. He has won several awards like Sadagopan Endowment Oration by Indian Association of Occupational Health 1974, Dr. Rangasamy Oration, Annamalai University, 1997, Dr. Rathnavel Subramanian Oration, MMC, 1997, Curzon Memorial Endowment Oration, Madras University, 1998, Presidential Oration of IAN, 1998, Dr. Rathnavel Subramanian Oration, MMC, 1999, Institute of Neurology Oration, 2000, best teacher award, SRMC, 2000, Life Time Achievement award by Madras Neuro Trust in Neuro update 2010 and Stanley Medical College in 2010, has been honored by NeuroCon-South 2010 with the Lifetime achievement award in 2010.

He was honoured with the Padmashri from the President of India, D.Sc Hon. (Honary cause) from Tamilnadu MGR Medical

University and D.Sc Honary cause from Madras University during its 150th year.

He is a Fellow of Royal College Physicians, Glasgow; National Academy of Medical Sciences; and of MMC; founder Fellow of IAN and International Medical Sciences Academy.

He has championed the cause of epilepsy for 40 years as Secretary and President of Indian Epilepsy Association, Chennai chapter. He created a sheltered workshop for chronic epileptic patients – the first of its kind in the country. He had an unswerving passion for teaching clinical neurology. His students loved and respected him and created an endowment oration in his name at MMC. He has the unique character of telling but not preaching, asking but not commanding, persuading but not pressurizing, nudging but not nagging, achieving but not advertising, and always teaching, never tiring.

Dr. Velmurugendran is the Chairman and Director of Neurology at the Department of Neurology, Sri Ramachandra University, Chennai.

Dr. Velmurugendran pioneered in setting up the Department of Neurology, in 1975, at Stanley Medical College. During his tenure, an epilepsy clinic was started and free drugs issued to the patients.

The Madras Neuro Trust was founded in the year of 1993 with Prof. G Arjundas as Chairman, Prof. Velmurugendran as Secretary, Prof. S Kalyamaraman as Treasurer and 5 other members. Neuro Update, the annual CME, is conducted with faculties from India and abroad.

The Association of Behavioral and Cognitive Neurology was founded in the year 1985 by Dr. Velmurugendran to give importance to cognitive neurology which at that time was not well developed. The public fora were conducted frequently to spread knowledge about cognitive neurology and give importance to developmental neurology. Update on Cognitive Neurology is conducted at regular intervals.

He is married to Pattavarthini, a graduate of Madras University. She is all pervasive and is Dr. Velmurugendran's strength. They have 3 children— Dr. V Krithika, is a PhD, in Neuropsychology, Dr. V Jayshree is a Master of Law and Dr. CV Shankar Ganesh is a neurosurgeon working as Assistant Professor of Neurosurgery at JIPMER, Pondicherry. He has 3 grandchildren who also aspire to become doctors.

Dr. Velmurugendran is currently the Chairman and Director of Neurology at Sri Ramachandra University, Chennai.





DR. GK AHUJA

President—Indian Academy of Neurology
(1998–1999)

*D*r. Gulshan K Ahuja, was born in 1939 in Rawalpindi (now in Pakistan). During the partition of India his family shifted to Kanpur in UP where he did his schooling. He joined Amritsar Medical College and graduated in 1961. After a stint at Irwin Hospital, New Delhi he went to USA and did residency at University of Vermont College of Medicine, Burlington, Vermont, under Prof George A Schumacher, an eminent neurologist, an excellent clinician and a perfectionist (known for Schumacher criteria for diagnosis of multiple sclerosis).

Neurology at that time was an arm chair specialty. Diagnostic studies included plain radiology, cerebral angiography, pneumoencephalography and myelography; therapeutic options were few. Dr. Ahuja learned the diagnostic skills using analytic approach and logical thinking.

After completing residency, he worked as Registrar in Neurology at the London Hospital and during this period obtained MRCP. He returned to India in 1968 and joined the All India Institute of Medical Sciences, New Delhi, as a Pool Officer. He moved to National Institute of Mental Health and Neuro Sciences as lecturer

but shifted back to AIIMS in 1976 as an Assistant Professor and gradually moved up to the post of Professor and retired in 1995. When Dr. Ahuja joined AIIMS in 1976, the Department of Neurology was directionless and dominated by neurosurgeons. With his efforts, this situation was changed and the department regained its old status and established itself as one of the leading centres for training in neurology. Specialty clinics on movement disorder (which was the first of its kind in India) and epilepsy were started. The strength of faculty gradually increased and the department received national and international status due to contributions in research. Dr. Ahuja contributed to strengthening the teaching programs and patient care services.

His major contribution was to research in myasthenia gravis. Facilities for assessing ACHR receptor antibodies were initiated in 1978. The work of his team also demonstrated that antibodies to ACHR from MG patients reacted equally well to receptors from monkey heart muscle, brain and human muscle. This led to further research where it was demonstrated, in patients, that MG also affects, in addition to skeletal muscle, heart and brain. This was pioneering work and was the subject of his Presidential Oration at Indian Academy of Neurology. His studies brought to the notice of medical profession, the entity of cysticercus granuloma.

Dr. Ahuja is a Fellow of Royal College of Physicians, Edinburgh, UK, National Academy of Medical Sciences (New Delhi), National Academy of Sciences (India) and a founding fellow of Indian Academy of Neurology. Dr Ahuja has had the honour of being appointed physician to the President of India. He was a Visiting Professor to Al-Arab University, Benghazi, Libya, and Johns Hopkins Hospital, Baltimore, USA. He is the recipient of Lifetime Achievement award in Neurology awarded by Delhi Neurological

Association. He has published several scientific papers in national and international journals and contributed chapters in books.

His wife Rajneesh is a Gynecologist and daughter Priya a Business Executive.

Dr. Ahuja is currently a senior consultant neurologist at Sitaram Bhartia Institute of Science and Research, New Delhi and Indraprastha Apollo Hospital, New Delhi.





DR. DEVIKA NAG

President—Indian Academy of Neurology
(1999–2000)

I was born on 28 December 1938 at London Hammersmith hospital, UK. My father was Col. Sukumar Nag, FRCS, MRCP, DTM &H from Edinburgh and London. My father was the only member of the Nag clan who opted to become a doctor and joined the Indian Medical Service (IMS) in London. He was educated at Calcutta Medical College, Vienna, Edinburgh and London. Being the eldest son it was expected of him to continue the aristocratic feudal tradition of the Nag's of Barodi in East Bengal. He chose to do otherwise.

My mother was the grand daughter of Rai Bahadur Jagdish Chandra Guha of Mymensingh of East Bengal. They had progressive ideas and both boys and girls were educated. After their marriage my parents embarked on a world tour for three years! starting from Burma, S.E Asia, China, Japan, USA, Europe and UK. They finally stopped in London where I was born. My father had to return to India as World War II was declared. We travelled on a P.O. liner, The S.S. City of Baroda which was torpedoed on the way back to England. Being an army officer, my father had to be at the war front at Iraq, Iran and Mesopotamia to raise field hospitals for wounded British/Indian soldiers. I lost my

father when I was 3 years old and my younger sister was a few months old. My mother was devastated at the young age of 22 years. She remained at Lucknow where my father had gifted her a house on her birthday at 24, Newberry Road, Lucknow. My mother did not want to leave for Calcutta or Bengal where we had other houses. She was determined to educate both of us and I was sent to the Calcutta La Martiniere Girls School which had temporarily shifted to Lucknow at the Raja of Tiloi's House which was near our home at three and a half years of age. I was precocious for my age and did not find studies too hard. I got two double promotions from standard 1 to 3 and again from standard 6 to 8. After a couple of years at Christ Church, Lucknow, I went to Loreto Convent.

There were air raids and bomb alarms in Calcutta from Japanese planes coming from Burma. I still remember as kids, during the pre-independent days, the excitement when Nehru and Sarojini Naidu came for freedom movement rallies. We also saw Netaji SC Bose's INA soldiers marching to Calcutta.

I was very studious and hard-working and stood first in all exams in school. In 1954, I stood 1st in Senior Cambridge from Loreto Convent in UP, and was awarded a two years merit scholarship.

I was and still am passionately fond of reading literature, biography, philosophy, fiction, non-fiction, poetry and detective stories. I did not at that time ever want to be a doctor. My dream was to become a writer of best sellers. My mother thought this was impractical and suggested that several famous writers like AJ Cronin, W S Maugham and Chekov were doctors initially. Reluctantly I joined the famous Isabella Thoburn College in 1955 and passed intermediate science in 1957. I obtained 1st position among the women candidates in the premedical test in UP and got a one year merit scholarship. I joined the prestigious King George Medical

College, Lucknow in 1957. There were only 25 seats for girls and 75 for boys. I passed MBBS in 1962 with eight gold and two silver medals, followed by MD (medicine) with three gold medals including the Vice Chancellor's gold medal for the best postgraduate women student in Lucknow University, (of which the faculty of medicine was a part of). Needless to say that residency those days in medicine was male dominated and some of my male colleagues made attempts to make me leave medicine in disgust and opt for gynecology or pathology which were considered ideal for women. The faculty too were reluctant to take me in. I remember my most senior teacher telling me "what is the use of your doing medicine you will get married; you should learn to cook well; you will be depriving a male candidate of this seat." The challenge to prove otherwise was profound and I grimly held on until exams were over. Once the faculty found I was willing to work long hours and harder than the others they encouraged me. My teachers were Professors SS Mishra, KB Kunwar, NN Gupta, SN Chakraverty and others. When I was doing my MD residency Prof. PN Tandon, who had just arrived from Montreal was working in the Department of Surgery as neurosurgeon. I was always sent to him for referrals as he invariably started seeing cases late in the afternoons only, after his operations were over. I was impressed by his meticulous history taking and detailed neurological examination. Prof. NN Gupta under whom I wrote my thesis was especially interested in neurology and this made me want to become a neurologist.

In the 1960's the war in Vietnam with involvement of USA led to many young doctors being drafted as a result of which several vacancies were available for residency in USA. I applied to New York, Columbia, Presbyterian, Boston, Tufts, Harvard, and Queen's Square, London. I was accepted for a mid term position at Tufts University, Boston followed by Harvard. Those were glorious days

and I have fond memories. I was taught by Prof. D. Denny Brown, Dr. Raymond D Adams, Dr. John Sullivan, Dr. C. Miller Fisher, Dr. A Astbury, Dr. H Richard Tyler, Dr. D Drachman and Dr. R Schwab. I was in charge of preparing the Brain cutting sessions case sheets as well as doing post mortems on all neurological cases including trauma. All data was dictated on a microphone hanging from the ceiling so that nothing was missed. I was thrilled to have finally made it to Harvard and I felt lucky to have been chosen. The teaching and the research there showed me how little I knew of neurochemistry, neuropharmacology, neuropathology and electron microscopy. Our working day started at 7am and ended at 8pm. I did one year Fellowship in Neuropathology with Dr. Floyd Gilles and Dr. Tessa Hedly-White. I also worked for a few months in neurosurgery. Neuroradiology was taught by Dr. Juan Taveras of New York. Those days direct carotid puncture was the usual method for angiography. How lucky we are today to have CT scan, MRI, PET scan, etc! In 1972 I undertook a postgraduate course at the National Hospital, Queen's Square, London. I was impressed by the clinical bed side teaching of Dr. Michel Cremer. My other teachers were Dr. R. Gilliat, Dr. PK Thomas, Dr. Roger Bannister and Mr. Valentine Logue.

On returning to India I was at a loss as to what to do. There was no Department of Neurology in Uttar Pradesh. Neurology cases were always a part of Department of Medicine. I worked with the newly built Vivekananda Polyclinic from 1971 to 1973 where I did clinical medicine and neurology with minor surgery without any recourse to EEG, EMG or radiology. Fortunately my teacher Prof. NN Gupta sent me an advertisement for Readership (now Associate Professor) in medicine (neurology). I went for the interview and was selected. I met Prof. NH Wadia and Prof. TK Ghosh for the first time. On joining I found that there were no other facilities that were taken for granted in Boston. I had six beds in the verandah of Medicine

ward and took classes, rounds and OPD for students in medical neurology. Luckily by the herculean efforts of Professor NN Gupta in 1975, a full fledged Department of Neurology was created in KGMC with 32 beds. I was appointed head with two lecturers and residents rotating from medicine, psychiatry and neurosurgery. I was appointed as Professor and Head of the first independent department of Neurology in the state in 1977. It was an uphill task all the way. Colleagues in medicine were resentful of a “woman” becoming professor by superseding several seniors. Starting from scratch was daunting. The paper work and beaurocracy were tardy in giving me a 2 channel EMG/NCV machine and 16 Channel Grass EEG machine. I was really fortunate to have a helpful, colleague in Prof. VS Dave, a neurosurgeon who lent me his 8 channel Grass EEG machine along with a technician until I got my own.

I was intrigued to see seizures and other neurological syndromes in certain villages of UP. In 1976 the government of UP advised the Industrial Toxicology Research Institute (ITRC), Lucknow to investigate an outbreak of paralysis at Unnao district. Dr. Zaidi the then Director needed a clinician and I went along with their team. After examining and analysing the cases it proved to be lathyrism due to high levels of manganese in the drinking water. Flourosis was another problem in selected pockets of UP. These problems whetted my interest in neurotoxicology. We went to different sites with a team of junior residents and ITRC scientists and examined food, water, soil and patients with epilepsy in Sitapur district and Lakhimpur Kheri. The cause proved to be organochlorine pesticide. Dr. CR Krishnamurti the successor of Dr. Zaidi was most helpful and I was fortunate to have Dr. UK Mishra as my DM student and co-researcher in the pesticide work. Several papers were presented at NSI and IAN meetings and data published. We studied the effects of chronic exposure to organochlorine, organophosphates, pyrethrins and aluminium

phosphide in humans. This could be replicated in the laboratory at ITRC. In 1978 the first Clinical Toxicology unit (CSIR) was established in the Department of Neurology at KGMC – both ITRC and CDRI collaborated with us. The work was exciting and we studied the neurological, neurophysiological and radiological effects of chronic cannabis ingestion and profile of chronic users of country liquor. Effect of AED on cognition in children and adults, effect of enteroquinol on CNS, use of petroleum, organic solvents and heavy metals in making jewellery were the other projects undertaken. In 1984–1988 we studied the effects of the Bhopal gas tragedy at Madhya Pradesh.

In 1981 the first DM neurology course was started in UP after MCI inspection and approval. I am proud to say that many of my early students have proved their worth and are now professors of neurology of their own department/units of neurology in Uttar Pradesh. All the faculty of SGPGI, Lucknow are my students. Some are consultants in various states of India and abroad. I had two supportive colleagues Dr. AM Kar (a wonderful organiser) and Dr. Rakesh Shukla (meticulous academician). Later Dr. Atul Agarwal another old student joined from Meerut Medical College and did yeomen work in epilepsy. I retired from KGMC on 30 June 1999 and was conferred Professor Emeritus in Neurology by Lucknow University.

My experience of neurological cases in UP were quite different to what I saw abroad. I am glad I returned to India although I had gone back a couple of times to USA when I was discouraged in Lucknow. Dr John Sullivan of NEMCH, Tufts University had promised me a job. I am glad I did not avail of that offer mainly because of my mother's persistence in emphasising that work done in India would be far more fulfilling than making dollars in USA. I have had the pleasure of personal interaction with the great

stalwarts of neurology in India: viz., Professors Baldev Singh, NH Wadia, EP Bharucha, B Ramamurthy, TK Ghosh, DK Dastur, Shyamal Sen, Arjundas, J Chandy, KS Mani, JS Chopra, V Virmani, BS Singhal, Rajasekharan Nair, Krishnamurthy Srinivas, K Srinavas and so many others it would take another page. I am grateful to Professor NN Gupta and Professor VS Dave who were helpful in making life easy for me at KGMC. We had a neuro club which met regularly at neurology/medicine department and Army Command Hospital to discuss interesting neurological and neurosurgical cases. I remember our interaction with Major PK Sethi, Major Vijayan, Surg.Com Surya Rao, Gen. S Venkataraman and others. Prof. MK Mehra, HOD of Ophthalmology at KGMC. Prof. VS Dave and myself had neuroophthalmology meetings every thursday afternoons which were very educational both for the students and for us.

I received the best teacher award from KGMC in 1991, 12 national orations (API,NSI, IEA, IAN, and IANSc.), UP Ratna Award 2007 and Bachawat Lifetime Achievement Award 2011 by Indian Academy of Neurosciences.

Some of the positions held by me are: MCI inspector for DM and DNB (neurology) 1993-1995. Dean, Indian Academy of Neurosciences, 1994-96, Founder Fellow of Indian Academy Neurology, President of UP Neuroscience Society 1995-96, Fellow of American Academy of Neurology, Member of IBRO, Fellow of National Academy of Sciences, 1994. President of Indian Academy Neurosciences, 2000-2001, President of Indian Epilepsy Association 1998-1999. Vice President of Indian Epilepsy Society, 1999-2000. President of Alzheimer's Disease and Related Disorders (ARDSI), Lucknow branch, 2000-2001. Honorary Consultant in Neurology, Armed Medical Forces India, 2001-2005. Vice President II WFN Neurotoxicology division, 2001. I have been DM examiner at

various postgraduate institutes (Chandigarh, Hyderabad, Chennai, AIIMS, GB Pant, New Delhi, SGPGI, Lucknow).

I have 182 scientific papers, 8 chapters in national and 3 in international books, a monograph on 'A status report on neurotoxins', a book on 'Biological Neurotoxins in India' (supported by Department of Environment and Forest, Govt. of India) to my credit.

To conclude it has been a rewarding experience to be a teacher of neurology. I feel that a strong internal medicine basis is a must for any student of neurology. Due to the academic positions I held, I personally feel that if students are assessed positively by their teachers throughout the year, exams should not be a distressing and stressful experience. Students who come from other cities should not consider the entire examination exercise as a nightmare. I feel sad when students fail. My students are a source of comfort and pride to me as they are achieving so much. I have had the good luck of having neurologist friends from all over the world. I am very impressed with the younger group of neurologists of our country like Dr. Sarosh Katrak, Dr. Pravina Shah, Dr. Prithika Chary, Dr. JMK Murthy, Dr. Ambar Chakravorty, Dr. Satish Chandra, Dr. Sarla Das, Dr. NC Borah, Dr. HV Srinivas, to mention a few. They are so bright and knowledgeable and have had the benefit of world class facilities.

I continue to be President of Indian Academy of Neurosciences, Lucknow branch, and am member of ICMR Task Force for research in Neurosciences under Chairperson Professor Gourie-Devi. I am a member of the Executive Council of the CSM Medical University (former KGMC) and am the Chairperson of the Ethics Committee at Dr. RM Lohia Institute of Medical Sciences.

I am grateful for the faith, wisdom and encouragement of my mother who by God's grace is still with me. My days are busy in neurological work and research; I still have time to read. I shall end with a quote by Robert Browning: "What I aspired to be, and was not, comforts me".

I am currently senior Consultant Neurologist at Mayo Medical Centre (a private hospital) in Lucknow.





DR. D NAGARAJA

President—Indian Academy of Neurology
(2000–2001)

*D*r. D Nagaraja was born to Dr. Ramaswamy, freedom fighter and Jayamma, at Turuvekere, Tumkur district. He completed his schooling at Turuvekere and PUC at National College Basavanagudi, Bangalore. He has been National Merit scholar since his matriculation.

After his basic medical degree from Bangalore Medical College, he joined the then All India Institute of Mental Health (AIIMH), Bangalore for PG in Psychiatry. Having been influenced by Prof. KS Mani, during his postings in neurology, he switched over to neurology by joining the DM course after completion of post-graduation in Psychiatry. In 1980, he joined NIMHANS as a Lecturer in Neurology where he steadily rose in the ranks and finally became the Director/Vice-Chancellor in 2002 in which position he continued till 2010.

The AIIMH and the state government mental hospital were amalgamated into an autonomous institute – NIMHANS – in 1974. The department of Neurology had a solid foundation of clinical neurology and record keeping because of the obsessive nature and active supervision and training by Prof. KS Mani. Successive

Directors gave importance to research and publications in addition to postgraduate training and patient care. However, though the institute was still known in administrative and political circles as the best mental hospital it was not considered equivalent to AIIMS or PGI and hence financial allocations were very low. Dr. Nagaraja made systematic efforts to project neurosciences and behavioural sciences equally and took upon himself many national responsibilities like evaluating NMHP and redrafting the mental health program for the country which was approved by Ministry of Health and Family Planning and the Planning Commission allotted Rs. 1000 crores to NIMHANS in the tenth five year plan. NIMHANS team along with Dr. Nagaraja visited the Tsunami affected regions of the country and carried out first aid and capacity development. NIMHANS was declared a 'Nodal Centre' for psychosocial care for the country.

His contribution to neurosciences and behavioural sciences of the institute is impressive. Though he started his tenure with a deficit of nearly Rs. 10 crores, he managed to successfully, get additional grants from the Government of India and brought in stability to the financial crisis that NIMHANS was facing. He started development fund and improved PF funds.

During his tenure, the institute also saw steady and rapid strides in development in all spheres of activity. The dream of getting a Gamma knife became a reality. Many sophisticated equipments were added and many new laboratories were set up. He established the first stroke unit in the public sector in the country.

New wards, well equipped new casualty and emergency services and buildings to house different departments were constructed/renovated.

He increased the PG intake by 50%. Twenty-three new faculty posts were sanctioned. A nursing college (BSc degree) with a capacity of 100 students per year was started. New courses and Ph.D programs in different disciplines were introduced. Thus during his tenure as Director, NIMHANS gained national/international recognition for both neurosciences and behaviour sciences.

A declared slum within the campus was shifted in spite of resistance from politicians. Land measuring 3.26 acres was lost in 1986 and decreed against institute in 1992. He reopened the issue in 2003 and after prolonged legal struggle the title suit was declared in institutes favour in 2009.

His contribution in teaching and research is significant. He popularised the use of low and medium dose heparin in CVT by showing the safety and efficacy (even in haemorrhagic CVT). He studied and published extensively on the risk profile of stroke in the young and reported on the role of anti-phospholipids antibodies, homocysteine as risk factors of stroke in the young. He has guided several students for Ph.D and has been guiding DM students since 1985. He has over 230 publications in various indexed journals.

Dr. D Nagaraja organized the 4th annual conference of IAN in 1996 and saved money for the formation of an educational trust. He was elected as Hon Secretary of IAN for 1996–1999, as Vice president in 1999–2000 and as President in 2000–01. He was the Editor of Annals of Indian Academy of Neurology for 3 years.

He has been Member of (i) (a) scientific advisory group, (b) core group NCD division and subgroup on cerebro-vascular diseases of Indian Council of Medical Research, New Delhi (ii) Governing Council, Institute body, Standing Finance Committee, Standing Academic Council and other bodies of PGIMER, Chandigarh and

JIPMER, Puducherry (iii) Scientific advisory group and Governing Council of National Brain Research Centre, Manesar, New Delhi.

He is a founder fellow of Indian Academy of Neurology and Fellow of National Academy of Medical Sciences and Fellow of Indian College of Physicians. He has been honoured with the following orations: Abdul Gafoor memorial Oration of NSI Kerala chapter, NN Gupta oration at KGMC, Lucknow, Sarabhai Oration, API (national), KS Shadaksharappa Oration, API Karnataka, Col Dhamija oration, NSI, New Delhi, TB Basavarajendra oration, API Karnataka, Srinivasachar guest lecture, Bellary, He is the recipient of many prestigious awards – Karnataka Rajyotsava award, Sir M Visveswaraiah award and BC Roy award of IMA. He is also actively involved in social work and is a member of many organisations and conducts outreach programs regularly for the benefit of rural poor.

He is married to Dr. Vasantha Kamath currently Director, Karnataka Institute of Medical Sciences, Hubli. They have one son Dr. Karthik, a gold medallist from Rajiv Gandhi University of Health Sciences and currently doing his DM Neurology at NIMHANS, Bangalore.

Dr. Nagaraja is currently a senior Professor of Neurology at NIMHANS, Bangalore.





DR. S VENKATARAMAN

President—Indian Academy of Neurology
(2001–2002)

*D*r. (Maj Gen) S Venkataraman was born on 21 December 1939 at Trichy in Tamil Nadu. He did his initial schooling at E.R. High School, Trichy and then at Sri Ramakrishna Mission High School, Chennai. He studied intermediate course at Vivekananda College, Chennai before joining Madurai Medical college in 1956 and completed his MBBS in 1962. While he was doing House Surgeoncy at Govt Erskine Hospital, Madurai, the Indo-Chinese war started and Emergency was declared in the country.

He joined the Army Medical Corps in 1963 as a Lieutenant on Emergency Commission. He got permanent Commission in 1966 and was selected for training as a Medical Specialist (Physician) at Armed Forces Medical College (Pune) in 1968 and completed his MD (General Medicine) from Pune University in May 1971. While on training as a Physician he got married. He served as General Physician till 1975 when he was selected by the Armed Forces to undergo post-doctoral training in neurology at All India Institute of Medical Sciences. After obtaining DM (Neurology) he worked as Specialist/Consultant in neurology in various Command Hospitals from 1977 till 1992.

In 1992 he was promoted to the rank of Brigadier equivalent and transferred to the Navy (Surgeon Commodore) and appointed as Director Medical Services (Health Services) at Naval HQ. In 1997 he was promoted to the rank of Major General and reverted to the Army. He was the first neurologist in the Armed Forces to be promoted to the rank of Major General and commanded Command Hospital, Calcutta. He retired on 31 December 1997 after 35 years of Service.

During his career in the Armed Forces he excelled in all qualifying courses. He was awarded Vishisht Seva Medal by the President of India in 1982 for distinguishing service rendered with a medical/dental team of Indian Army visiting Nepal for giving medical aid to Nepalese ex-servicemen of the Indian Army.

Dr. Venkataraman was specially interested in cerebro-vascular accidents, infections of CNS-neurocysticercosis/tuberculosis of central nervous system and non-compressive myelopathic disorders. His original papers on various aspects of neurocysticercosis (NCC) are well known and had earned him the name “Neurocysticercosis Venkataraman” in conferences and scientific meetings.

He has published over 150 research papers in Indian/International journals and is a regular writer of chapters in compilations of CMEs of API, NSI and IAN besides other monograms.

He was Chairman of Scientific Committee of APICON 2004, Editor of Postgraduate Medicine 2004, President of Association of Physicians of India (2004–2005) and delivered the presidential oration titled “Neurocysticercosis: Where are we today?”

He has been teaching undergraduates since 1971 (Pune University) and is a recognized postgraduate teacher in Medicine of Delhi University since 1987 and has been on the Board of Examiners for DNB (Neurology). He is also an active member of Delhi Neurological Association.

Professional Life

He has been associated with Association of Physicians of India (API) in various capacities and has been participating in CMEs of annual conferences regularly.

He had been a member of Neurological Society of India (NSI) since 1977. He was a member of Executive Committee of NSI for 12 years and had been co-ordinator of CMEs during annual conferences of NSI from 1995 to 2002. He brought out the first directory of NSI members in 2002, which was released at Kochi. He had been a member of the Committee for Review of Bye-laws of NSI.

He was a founding member of Indian Academy of Neurology and was elected President of IAN for the year 2002–2003. His presidential oration on Contributions of Armed Forces to neurosciences in India, delivered at Lucknow in 2002, was an eye opener to non-armed forces neuroscientists to take note of research work in neurosciences being conducted in Armed Forces.

He was awarded Certificate of Recognition for the work done in neurology in India at the combined annual conference of 12th Asian Oceanic Congress and IAN in 2008 by Dr. Abdul Kalam, former President of India.

Dr. Venkataraman is married to Ganga, an economics graduate and a home maker. They have two daughters. Dr. Gayatri is Ph.D

in Life Sciences and is assisting Dr Swaminathan, National Adviser in agricultural matters to Govt of India, in various research projects. His second daughter Bhavani completed her MBA and is working as Regional Head of Kodak Ltd for Asia Region.

Dr. Venkataraman is currently working as Honorary Consultant in Neurology at Mata Chanan Devi Hospital, New Delhi.





DR. S PRABHAKAR

President—Indian Academy of Neurology
(2003–2004)

President—Neurological Society of India
(2010)

*D*r. Prabhakar was born on 14 April 1949 at Jallandur (Punjab). He passed MBBS from Rohtak in 1971 and joined PGIMER, Chandigarh and completed MD (Medicine) in 1975 and DM (Neurology) in 1978. He has over 35 years of academic and research experience in neurology.

Contribution to neurosciences

Dr. Prabhakar has been examiner for DM (neurology) of several Indian Universities for the last 15 years and has guided the Ph.D thesis of 12 students. He has been an expert on the Selection Committees of Himachal Pradesh Public Services Commission, Maharishi Dayanand University, Rohtak (Haryana), Dayanand Medical College, Ludhiana, AIIMS, New Delhi, and PGI, Chandigarh. He has been inspector for Medical Council of India and National Board of Examinations for evaluating DM/DNB training in India. He was Visiting Professor to University of Ulm, Germany, University Institute of Clinical Neurophysiology, Ljubljana and Dayanand Medical College, Ludhiana. He has delivered 6 Orations (both in India and abroad) as Invited Guest Professor and various Invited Lectures during World Congress of

Neurology Conferences and Annual meetings of Indian Academy of Neurology and Neurological Society of India.

Dr. Prabhakar was elected as Chief Editor, Neurology India, the Official Journal of Neurological Society of India for a period of 6 years from 1997–2002 during which time ‘Neurology India’ was indexed in Index Medicus and MEDLINE. He was co-editor of the *Text Book of Neurology*, which was published in January 2001. He has edited a book titled “*Taenia Solium Cysticercosis from Basic to Clinical Science*” and was Editor of the (i) Annual Report of the Postgraduate Institute of Medical Education and Research, Chandigarh and (ii) ‘Reviews in Neurology’ – a CME book of the Indian Academy of Neurology for a period of 3 years from 2006–2008.

Research

Dr. Prabhakar has been Principal investigator/co-investigator of various Indian Council of Medical Research/Department of Science and Technology projects since 1983. He has published more than 200 papers in journals of national and international repute and has contributed 28 chapters in various text books. Dr. Prabhakar’s basic interest is ‘Stroke in Young’ and ‘Headache’ which he has been pursuing since 1975. He has developed a module of managing acute cases of stroke in the absence of specialized and sophisticated “stroke units” with equally effective results. He has studied the role of prothrombotic state and genetic factors in the causation of stroke in young and has found genetic defects, producing protein C and protein S deficiency. He has also been instrumental in development of the Molecular Laboratory and Stem Cell programme in the management of cases of stroke and amyotrophic lateral sclerosis at PGI, Chandigarh and other northern states. He has also helped in starting the molecular diagnosis and genetic studies in Parkinson’s disease and ALS.

Dr. Prabhakar has contributed immensely to the development of neurology in India by advising upgradation of the neurology departments in various state medical institutes and tertiary medical institutes being funded and supported by Govt. of India. He has been helping the Medical Council of India and National Board of Examinations in selecting hospitals for neurology training. He has trained 130 super-specialists in neurology at PGI, Chandigarh since 1978 majority of whom are neurologists heading various hospitals and departments in teaching institutes. He has regularly been spreading public awareness about neurological disorders through Radio and TV talk shows.

A “Brain attack” program was started, which includes a public awareness programme, a 24 hour stroke helpline for acute stroke patients with a dedicated thrombolysis programme. Currently, the department boasts of one of the highest rates of thrombolysis in the country.

To honor the resolution to “bring epilepsy out of the shadows” a comprehensive epilepsy care program has been started under which patients with medically refractory epilepsy are followed up in the refractory epilepsy clinic.

Research activities in the department have grown phenomenally in the last decade. The quality of work has attracted funding from ICMR, DBT and NIH (USA). Dr. S Prabhakar, Chief of the department has also been the co-principal investigator with NIH, USA on two projects involving neuropsychological effects of marijuana abuse and HIV.

Dr. Prabhakar has been instrumental in starting the stem cell research and treatment facility in clinical conditions and

experimental animals with financial support from Department of Biotechnology, in the Neuro Research Laboratory.

Dr. Prabhakar has been Director of Studies, Vice President and President, Indian Medical Association, Chandigarh State Branch; Vice-President, Treasurer (for 9 years) and Honorary Secretary (for 3 years) of Indian Academy of Neurology; Life Member of Neurological Society of India, Indian Academy of Neurology, Indian Epilepsy Association and Indian Medical Association; Founder Fellow of Indian Academy of Neurology and Fellow of National Academy of Medical Sciences (FAMS).

Dr Prabhakar is married to Dr. Indu Prabhakar, a Consultant Gynaecologist who is running a nursing home since 1981. He has two sons – Dr. Sharad Prabhakar, Assistant Professor in Orthopaedics, married to Dr. Sonil, a Gynaecologist at Govt. Medical College and Hospital, Chandigarh and Dr. Anuj Prabhakar, a Radiologist, married to Dr. Nidhi, also a Radiologist at PGI, Chandigarh.

Dr. Prabhakar is currently Professor and Head of Department of Neurology at PGI, Chandigarh.





DR. SM KATRAK

President—Indian Academy of Neurology
(2004–2005)

I was born on 10 July 1944, the third child in a low middle class Parsi family. My brother, Ratan who was two years older to me, developed allergic bronchitis and was advised dry climate as a form of rehabilitation. Thus, he was advised to go to a boarding school in Panchgani. He would not go alone and therefore at a tender age of 5 years, I accompanied him. This set about a close bonding between him and me which has lasted even to this day. We spent two years in Panchgani and when he was deemed “cured” we moved to St. Mary’s High School (Cambridge section) in Mazgaon, Bombay. In 1957, we were shifted to St. Xavier’s School from where I passed SSC in 1961 and joined the science course in St. Xavier’s College, Bombay. I passed interscience in 1963, obtaining a first class and joined Grant Medical College, Byculla, Bombay.

My early school and college days were very pleasant as we had no responsibilities except to study and pass exams. I am grateful to my parents for inculcating good ethical values, honesty and integrity in all aspects of life. I had many opportunities to see the legendary Shankar-Jaikishan and Madan Mohan, music directors at work and Mr. Raj Kapoor who was a multifaceted and talented

actor, as my father, Mr. Minoo A. Katrak, was a famous song recordist in the Indian film industry. However, all this fascination was not sufficient to lure me into my father's footsteps and I decided to become a doctor.

I faced failure for the first time in my life when I failed in the anatomy paper of the 1st year MBBS exam, by just one mark, although I had high distinction in the practicals. Though it hurt tremendously at that time, but it made me a stronger human being who could face failures in a constructive way. The rest of the undergraduate career was full of fun and hard work. I had a very close and loyal group of friends who hailed from different parts of the country and from Malaysia and South Africa. Although my wife, Ahalya was my classmate right from 1963, something clicked only in 1966. We were going "steady" since then and I often tease her that you are my wife since December 1972 but my girlfriend since July 1966.

I began residency in Internal Medicine in August 1969 and worked with some of the brilliant doctors in different fields. I was particularly impressed by Dr. RD Lele for his tremendous reading and mastery over a vast range of subjects in medicine and Dr. VR Joshi, who was a very low key individual but had tremendous acumen for clinical diagnosis. During the six months term in neurology, I came in contact with Dr. NH Wadia and Dr. BS Singhal. Dr. Wadia is an extremely talented clinician, basically a teacher at heart and it is through his intelligent observation of cases that he had begun his research on spino cerebellar ataxias with slow eye movements and recognized the neurological complications of acute hemorrhagic conjunctivitis during the first epidemic in 1971. Dr. BS Singhal was the 'silent' clinician because he is the epitome of an old Chinese saying "you have two eyes, two ears and only one mouth. Therefore you must see and hear twice as much as you

“speak”. I learnt a lot of clinical neurology from Dr. Wadia by observing him closely at the bedside. Three months into my term as a house-officer, I made up my mind to become a neurologist. Thus I became Dr. Wadia’s registrar in neurology in February 1971. During the early part of the registrarship, Dr. NH Wadia asked me to be his first postgraduate student in neurology at the Bombay University which was starting a postgraduate course in neurology. I passed MD (General Medicine) in October 1972 and was appointed as Honorary Assistant Professor of Neurology in May 1973. However, there was a stipulation laid down by the government and Dr. NH Wadia, that I should finish MD (branch XIII-neurology) within the next three years in order to continue as Honorary Assistant Professor in the department. Thus, I was a teaching staff and also a postgraduate in a superspeciality. It was during these formative years that I realized that not only did I have a good acumen for clinical neurology but also the makings of a good teacher. My love for teaching began at this stage and continues to-date. Dr. Wadia had two other postgraduate students – Dr. HV Srinivas from Gulbarga and Dr. MS Bhat from Mangalore. All three of us cleared the exams in April 1975. Thus I was one among the first postgraduates in DM in neurology from the Bombay University who is still practicing in Mumbai (Bombay). HV, as I fondly call him, has achieved a high stature in neurology in Bengaluru and MS Bhat, is in Syracuse, NY, USA.

After passing the exams, I wanted to go abroad for further training. Dr. Wadia corresponded with Prof. John Simpson who accepted me as a research fellow in his department in Glasgow General Hospital. But that did not come through due to shortage of funds; I was crestfallen. Just about that time, Dr. Martin Pollock, who had come as a Visiting Professor for 3 months to AIIMS, New Delhi, was on the look-out for a postgraduate student who was interested in peripheral neuropathies. Dr. Wadia corresponded with him and

on his way back to New Zealand, Dr. Pollock stopped by in Bombay to meet up with me. At the very first meeting which we had in the Sea Lounge of the Taj Mahal Hotel, both Ahalya and I took an instant liking for him. We both felt that his vibes were very good and on the same wave length as ours and we readily agreed to work with him in the department of neurology at Dunedin, New Zealand. Between May 1976 and March 1978, we spent two wonderful years in Dunedin. This was really the type of life that I loved to live as a neurologist. There was plenty of academic work, clinical neurology and research and also a steady income and a very good quality of life. Unfortunately certain tragedies affected my family and I had to return to India. I am extremely thankful to Dr. Pollock for being a great mentor and a very good friend during the stay there.

On my return to Mumbai in 1978, Dr. Wadia expressed a desire to ease down on his work at JJ Hospital as he had taken up the Directorship of the Department of Neurology at the Jaslok Hospital. Thus, I started taking the teaching assignments at the JJ Hospital in place of Dr. Wadia. Initially, I was nervous trying to step into Dr. Wadia's shoes, but the response of the postgraduate students was very heartening and soon the attendance of postgraduate students started increasing. Both Dr. Wadia and I always kept the "doors" open and postgraduate students from KEM, Nair and Sion hospitals started attending the clinics. In 1979, I was appointed postgraduate teacher for DM Neurology, Bombay University and am extremely proud of the achievements of some of my students. I got a unit of my own when Dr. Wadia retired from JJ Hospital in 1981 and in 1991 became the Professor and Head of the Department on the retirement of Dr. BS Singhal. This was the period after the Babri Masjid demolition and the multiple bomb blasts in Mumbai. We were first made aware of terrorist activity in our city which was always peaceful. The fallout from these unfortunate incidents

was that the head of the department was responsible for looking after any criminal who was admitted in the prisoners ward with a neurological problem and I too had my share of these patients. I distinctly remember one such patient with black cat commandos standing around him. The patient's right upper limb and left lower limb were cuffed to the bed. He was drowsy and I had to give him a painful stimulus in order to check his level of consciousness. On doing so, he suddenly moved his hand towards me and the black cat commandos pointed their AK47 towards him. I am very sure that my pupils may have dilated to the same size as the bore of the rifle. It is rather unnerving to examine a patient neurologically under such circumstances. The rest of my experiences in JJ Hospital were extremely pleasant. I was loved and respected not only by the patients but also by the students. One of them, was audacious enough to write a letter to me after passing his DM in neurology under my tutelage. He wrote that when he joined the department everyone told him that I was a "Hitler" and extremely strict with the students; this strictness was for their benefit so that they learnt much more and that I was equally strict with myself. He also compared me to a coconut - hard on the outside but soft inside. I laughed and was very touched at the same time by this letter and the comparisons. I retired as Professor and HOD in July 2002 and although the Dean and the Government gave me a carte blanche extension, I did not accept it because of the stress of examining criminals. In lieu of my twenty-nine years of yeoman service to the Grant Medical College and JJ Group of Hospitals, the government of Maharashtra appointed me as Professor Emeritus, Department of Neurology in September 2005.

In October 1978, I was appointed as a Consultant Neurologist at the Jaslok Hospital and Research Centre. At that stage, the department of neurology and neurosurgery had giants like Drs. NH Wadia, Anil D Desai, Piroja Wadia, Gajendra Sinh and Homi

Dastur. All of them were twenty years my senior, yet I was welcomed into their midst as a colleague. Those were formative years in practice, yet I maintained a good balance between academics and private practice because of the healthy environment maintained by my senior colleagues. On my retirement from JJ, I became a teacher for the DNB in Neurology at Jaslok Hospital. My association with Dr. NH Wadia, which began in August 1969 continues to-date i.e. for 42 years. He has always remained as a teacher, mentor, friend and philosopher. In spite of his physical disabilities he is still willing to help his colleagues and students. He stepped down as the Director of Neurology, JHRC in February 2010 and on his recommendation the management appointed me as the Director for which I am grateful to the management.

I was one of the members of the adhoc committee of the Indian Academy of Neurology during its initial formative years under the presidentship of Dr. Krishnamoorthy Srinivas and Secretary Dr. JS Chopra. I later served a three year term as an Executive Committee member and was nominated as a Founder Fellow in September 1996. I was elected President unopposed in 2004-05 and delivered the Presidential Oration in September 2005.

I also delivered several orations for various organizations but am particularly proud to have delivered the NN Gupta oration at the KG Medical College, Lucknow in March 1996, the Cyril Fernando oration of the Ceylon College of Physicians in Colombo, Sri Lanka in October 1999 and the JS Chopra oration at the annual conference of the IAN in Visakhapatnam in September 2003. My love for teaching has made me the coordinator of the WFN CME programme for India since July 2005 and with the help of my colleagues in 12 centres brought India to the top of the list of users for this WFN programme. Because of these achievements, I was also appointed as a member of the Teaching Course Committee

which coordinates the teaching courses in the World Congresses of Neurology. I am also on the WHO-WFN panel of experts for the revision of ICD-10 in the subsection of infectious diseases. Recently in May 2011, I was given the Lifetime Achievement Award for Neurology by the SKS Neuropolytrauma Hospital, Hyderabad and joined the likes of Prof. NH Wadia (2007), Prof. K Srinivas (2008), Prof. JS Chopra (2009) and Prof. BS Singhal (2010).

Besides neurology, I have a passion for photography, particularly of wild life and historical monuments which I took up seriously in 2004 and still pursue this hobby. At the annual conference of the IAN in Nagpur in 2004 I had an exhibition of my photographs.

I am married to Ahalya, my classmate right from 1963, who has been my severest critic but the backbone of my achievements. Without her love and support, I would not have been half the person that I am today. We have two children, Shehzad and Gitanjali who never made any demands on my time during the formative years of my practice. Shehzad is now an engineer working in Sydney, Australia and Gitanjali has just completed her PhD in marine biology from Flinders University, Adelaide, Australia. I acknowledge the role of my family in my success.

I am currently the Director of Neurology, Jaslok Hospital & Research Centre at Mumbai.





DR. AMBAR CHAKRAVARTY

President—Indian Academy of Neurology
(2005–2006)

*D*r. Ambar Chakravarty was born in a highly educated family. His father was a reputed pathologist of Calcutta, his elder uncle a famous engineer and the first engineer to be awarded the FNA and his younger uncle had been Director of a CSIR institute and also a FNA and recipient of Padma Bhusan. Dr. Chakravarty did his school education at Hindu School. He passed the higher secondary examination, one among the first 20 rank students, and first entered the Presidency College and then moved to Medical College, Calcutta. He was awarded the National Science Talent Scholarship. During his under graduate days, he had an outstanding career winning as many as 5 gold medals and several Silver medals and book prizes. His decision to pursue neurology as a career was taken while in the pre-clinical period when only 18, much inspired by the neuroanatomy lectures and Brain dissections. He graduated in Medicine in 1972 obtaining a gold medal and record marks. He started training in Medicine and Neurology at the combined departments at Medical College Hospital, Calcutta under the able supervision of Dr. Shyamal Sen, the legendary neurologist. Dr. Chakravarty wrote his MD thesis on a comprehensive study of muscular dystrophies, an untrodden field of research in the country at that time. He was much influenced

by the works of Dr. A J McCommas (McMaster University, Canada) and Dr. Anil Desai of Bombay. Dr. Chakravarty was a recipient of the prestigious Dr. BC Roy Memorial Fellowship Award of Medical Council of India.

After obtaining his MD in 1976, standing first in order of merit, he continued to work as a Senior Resident in neurology and a tutor in neuroanatomy at the Medical College, Calcutta. After about a year while working on a project on cerebral blood flow employing the Fick principle, his UK job invitation arrived and he left for UK and started working as a Medical Registrar in Newcastle Area Health Authority. He passed the MRCP (UK) examination in a year's time. Thereafter he joined Dr. John Pearce at the Hull Royal Infirmary as Registrar in neurology for three years. During the latter part of the tenure, he was elevated to the level of Senior Registrar. He subsequently received advanced training in clinical neurology at the National Nerve Hospital, Queen Square, London, Radcliffe Infirmary, Oxford and at the Newcastle General Hospital. He started work for PhD on the metabolic aspects of migraine and was offered a faculty position at Toronto, Canada. Unfortunately he had to return home due to illness in the family. During his stay in UK, Dr. Chakravarty published several articles in JNNP, notable amongst which are the description of a new form of scapulo-peroneal syndrome and the use of primidone in essential tremor. On return, he joined the faculty of the newly established Department of Neurology at the Vivekananda Institute of Medical Sciences. Working with Dr Shyamal Sen at VIMS, the Department was shaped into a Center of Excellence. Dr. Chakravarty again visited UK in 1989 on a fellowship program for training in pediatric neurology to work with Dr. David Gardner Medwin at Newcastle General Hospital. During this period he also received training in dystrophin staining and had his first taste of working in a molecular genetics laboratory. He was admitted to the Fellowships of the

Royal College of Physicians of Edinburg and London in 1989 and 1996 respectively and a Fellow of IAN in 1997.

Dr. Chakravarty was associated with the activities of the Association of Neuroscientists of Eastern India (ANEI) since its inception and was the Founding Editor of the Journal (JANEI) which he continued for the next ten years. He was elected President of ANEI in 2001 and President of IAN in 2005.

During his long career in neurology, he delved into different subspecialties of neurological sciences but is mostly known for his work on ataxias and headaches. He started publishing from quite an early age and has over 150 journal publications to his credit mostly in international and indexed national journals. He has contributed several chapters in Update volumes and books and has edited six monographs in various topics in clinical neurology. Currently he is a specialty Chief Editor of the international journal *Frontiers in Neurology*. He is a peer reviewer for several indexed journals including *Neurology* and *Cephalalgia*. His current research interest has shifted towards cognitive neuroscience and neuroscience of art. He is an avid art lover and an 'amateur' art collector.

Dr. Chakravarty's major contributions in international journals include: clinic-genetic characterization of spinocerebellar ataxias in eastern India, cerebro-cerebellar diaschisis and several publications dealing with clinical aspects of migraine in adults and children and other forms of headache disorders like trigeminal autonomic cephalgias. He has also contributed several articles on History of Neurosciences and carried out systemic studies in autonomic dysfunctions in medical and neurological disorders. His current interest in cognitive neurosciences has already resulted in international publications on de novo artistry in dyslexia, a new

principle in art neuroscience namely dynamism and creativity. An article, the first of its kind, on de novo development of artistry in Alzheimer's disease is in press.

For his contributions on headache disorders, Dr. Chakravarty has received many awards from the Migraine Trust, London. He has delivered several prestigious orations apart from the two Presidential ones at the ANEI and IAN. These include orations at Meerut, Patna and Lucknow and Dr. AK Basu and Sengupta orations at Institute of Culture, Calcutta. Dr. Sreemanta Banerjee Memorial Oration at Medical College, Calcutta, BM Sharma Oration of Indian Epilepsy Association and Dayananda Memorial Oration and Silver Jubilee Orations at the VIMS, Calcutta.

Dr. Chakravarty is married to Srilekha, a medical graduate trained in Pediatrics, who chose to remain a home maker. They are blessed with a son, Subhadeep, who is also a medical graduate but opted to take up a career in basic medical research. He is a PhD in Immunology from University of Calgary, Canada and is currently working as a post-doctoral scientist at the University of Alberta, Edmonton, Canada.

Dr. Chakravarty is currently Honorary Professor and Head of Neurology at VIMS, Kolkata, Senior Consultant Neurologist, AMRI Group of Hospitals, and Park Neurosciences Center, Kolkata.





DR. RS WADIA

President—Indian Academy of Neurology
(2006–2007)

*D*r. Rustom Sorab Wadia was born in Pune on 6 August 1935, in a Parsee family. He was the 3rd among 4 brothers. He passed SSC from St. Vincent's School, Pune, MBBS from BJ Medical College, and Sassoon General Hospitals, Pune in 1958 with distinction in preventive medicine and MD in medicine in 1962.

He then joined the Ruby Hall Clinic, as Consultant. He has no formal degree in Neurology. He studied EEG at KEM Hospital, Bombay under Dr. E Bharucha, and EMG, nerve conduction under Dr. Mrs. Wadia at the JJ Hospital, Bombay where he attended rounds and clinics with Dr. NH Wadia. He trained in genetics at John Hopkins Baltimore under Dr. V Mckusick and underwent a one year training in Neurology at Queen Square, London as a Commonwealth Fellow. He was appointed as Assistant Honorary Professor of Medicine at the BJ Medical College in November 1962. He became Honorary Professor of Medicine in 1982 and Honorary Professor of Neurology in 1992. He retired from BJ Medical College in 1995.

Growth of neurology in Pune

In 1967, with the help of Dr. HV Sardesai, Dr. Wadia set up a Neurology Clinic at the Sassoon Hospitals and started the first superspecialty OPD without any support from the government. Soon news of the biweekly clinics reached the Armed Forces Medical College and students from there started to regularly attend these clinics. Subsequently Dr. Sardesai and Dr. Wadia started the Pune Neurology Society along with AFMC neuroscience specialists which met every fortnight. The clinical meetings which began in 1969 still continue.

The Pune Neurology Society now has 9 units which host the fortnightly meetings in rotation and the Society will host the 2011 IAN annual meeting. It was the co-host of the NSI meeting 3 years ago and the organizer of the 2nd annual meeting of the Tropical Neurology subsection. It will also host the Indian Stroke Association meeting in March 2012.

Dr. Wadia is a teacher of repute and even now 16 years after retirement from Sassoon students from there request him to take clinics and attend them in large numbers. He has been a regular speaker at CME's at NSI and IAN. He has been taking a postgraduate clinic and a journal class for medicine for postgraduates once a week at Ruby Hall for the last 25-30 years. He had also initiated and ran a journal class at the Sassoon General Hospital since 1964 until his retirement in 1995 and for 2-3 years after that at Sassoon Hospitals.

He has published about 125 papers in national and international journals and written several chapters in neurology texts and contributed articles in international multi authored texts on Carotid Artery Disease and the Indian variant of Motor Neurone Disease.

He is noted for his pioneering observations on: the neurology of organophosphorus insecticide poisons and the electrophysiologic studies in such cases; The Indian variant of motor neurone disease — later called benign focal amyotrophy; cerebellar ataxia in enteric fever; The report of the ring disc enhancing lesion in focal epilepsy; large series of cases of rhino orbito cerebral mucormycosis and the stress on a relatively benign form of the illness; Recording the frequency of Vit B12 deficiency and noticing that Vit B12 deficiency along with raised serum homocysteine, is a very common risk factor for both arterial and venous strokes in India; neurologic manifestation of chikungunya infection.

He has published a path breaking paper on cerebral venous sinus thrombosis in the CT Scan and has described the first large series of the neurology of HIV disease; The first report of axonal pure motor neuropathy as different from Guillain Barre Syndrome was recorded by him; the entity was later named acute motor axonal neuropathy (AMAN);

Work in the IAN

Dr. Wadia was an associate member of NSI. When the IAN was formed he became a full member and was invited by Dr. Chopra to join the first adhoc executive committee of the IAN. He was nominated as Founder fellow of the IAN and subsequently elected to the executive committee of the IAN for two 3-year terms.

He was President of IAN during the time of the highly successful and acclaimed joint congress between IAN and the Association of British Neurologists held in Mumbai in 2007. He was President of Tropical Medicine subsection of IAN. He is proud to claim that he has attended every session of every annual congress of the IAN to date and may be the only Indian neurologist to hold such a record!.

Hobbies and interests

Besides neurology Dr. Wadia is interested in sports. He was the captain of the hockey team. Dr. Wadia retains a strong interest in the world of sport and his main hobby as pastime is world sports (not just the Indian cricket matches). Besides playing for his college, Dr. Wadia and friends started a sports group “Cosmos Club” in the 1950’s which still meets regularly once or twice a month for a get-together and dinner.

He is married to Mrs. Manek Wadia also a doctor who was the head of the Blood Transfusion Services at Ruby Hall Clinic for more than 25 years. They have two children, Niloufer and Rohinton, neither of whom did Medicine. He also has three lovely grandchildren whose company he looks forward to whenever possible.

Dr. Wadia is currently a Senior Consultant at Ruby Hall Clinic, Pune and Emeritus Professor of Neurology at BJ Medical College and Sassoon General Hospital, Pune.





DR. MADHURI BEHARI

President—Indian Academy of Neurology
(2007–2008)

*D*r. Madhuri Behari born on 29 June 1950, in Delhi, is fifth among six siblings. She had her initial schooling and education in Delhi and graduated from Lady Hardinge Medical College, Delhi in 1972. After doing MD (Internal Medicine) from the same institution, she joined the Neurology Department of AIIMS as a research associate in 1977. Thereafter, she did DM (Neurology) from AIIMS in 1980 and joined the GB Pant Hospital, New Delhi in 1981 as Lecturer. Her bonds with the alma mater pulled her back to AIIMS in 1984 where she joined as Assistant Professor. She received training in movement disorder at the Institute of Neurology, Queen's Square, London, UK. She rose steadily in her academic career and occupied the position of Professor in 1998 and the Chair of Neurology Department in 2001, on superannuation of Prof. MC Maheshwari. Her main areas of research are Parkinson's disease, dystonia, neuro-infections and epilepsy. She introduced use of botulinum toxin in clinical practice in the country and conducted several live workshops to train young neurologists in the use of botulinum toxin. She has more than 350 research papers in national and international journals. She was the President of Indian Academy of Neurology and Delhi Neurological

Association and is on the editorial board of several national and international journals.

She has been spear-heading the movement disorders superspecialty in the country since 1989 and has been running a dedicated movement disorders clinic, the first of its kind in the country. Injection botulinum toxin for various dystonias was started by her in the country in 1990. She dedicated herself to the research and education in movement disorders and towards fulfillment of this goal she has conducted several workshops, video seminars and educational courses. Dr. Madhuri Behari is an astute clinician, keen researcher and dedicated teacher. She has guided several MD,DM and PhD students. She has delivered several talks in CME programmes.

She is on the education committee of Asian Oceanian section of Movement Disorders Society and Association of Parkinsonism and Related Disorders of World Federation of Neurology; on the editorial board of Neurology India and Parkinson's and Related Disorders journal. She was also the President of Delhi Neurological Association (2008–2009). She has received the Common Wealth Medical Fellowship and Woman Scientist of the year Award of the DBT, Govt. of India and the prestigious Gen Amir Chand oration of the National Academy of Sciences.

On personal level, she has three elder and one younger brother and lives at her parental house in Delhi.

Dr. Madhuri Behari is currently Professor and Head of Neurology at AIIMS, New Delhi.





DR. HV SRINIVAS

President—Indian Academy of Neurology
(2008–2009)

*W*hile the country was staging “Quit India Movement”, I staged a “Quit Uterus Movement” and was born on 9 August 1942 in Kurnool, Andhra Pradesh. My initial schooling was at Kurnool in Telugu medium, although my mother-tongue was Kannada.

I was born into a middle class family, the eldest of six children. My father was a press reporter of “The Hindu” and during the state reorganization, was transferred to Gulbarga, which was amalgamated into Karnataka from the Nizam’s State (as our mother tongue was Kannada). After completing PUC at Gulbarga my father wanted me to do BSc and MSc and join as a teaching staff in a science college, for two reasons, firstly economically he could not afford to send me away to a medical college (there was no medical college in Gulbarga then) and secondly he felt, as I was thin framed and under-weight, being at home may help me to look after my health!. It was by pure chance, that a visit from a well-wisher, who emphasised that if I became a doctor I would be able to financially support my siblings, which changed my father’s mind and I made my entry into KMC, Hubli. I was interested in physiology (I stood

first in the university) and this led me to medicine and subsequently to neurology.

After finishing MBBS in 1963, I was keen to do MD Medicine. However due to economic reasons, I had to do a stint as a railway medical officer for a year. I was offered a seat for MS (General Surgery) at Pune, which I refused and got admission in MD (General Medicine) at Ahmedabad, which I completed in 1967. My interest in neurology enabled me to take classes in physiology of nervous system for first year MBBS students while doing my MD. While many of my friends had anxiety and stress on the eve of examination I used to relax by going to a movie, to the consternation of my friends! I recollect, now with horror, how for differentiating the type of stroke an LP used to be done, and if it was blood stained then it was diagnosed as haemorrhagic stroke and if it was clear then it was an ischemic stroke!

I joined as a faculty in Department of Medicine at MR Medical College, Gulbarga and continued there for the next five years during which time I developed a keen interest in neurology and was on the look out for admission in DM Neurology. When I went to Bombay I had an opportunity to join DM (Cardiology) which I refused and was fortunate to join the 1st batch of DM Neurology, at Grant Medical College and JJ Group of hospitals under the guidance of Dr. N H Wadia & Dr. B S Singhal. The hostel stay in Bombay was indeed very difficult, that too after having experienced five years of comfortable life with family, having nice home made food. It was tough to start off as a student once again after having been an Associate Professor. However due to my passion for neurology all these were secondary. It was a pleasure to be associated with teachers like Dr Wadia and Dr Singhal and batch mates Dr. Katrak and Dr Bhat. I also got the best paper award during the NSI meet at Vellore.

Dr. Sarosh Katrak, Dr. MS Bhat and myself were the successful students of the first batch of MD (Neurology) from Bombay University in 1975. For a brief time I toyed with the idea of settling in Bombay and applied for an Honorary teaching job in one of the teaching hospitals. But I was denied the job because I did not belong to Maharashtra. May be this was a blessing in disguise, as I subsequently joined NIMHANS, Bangalore.

I returned to the Department of Medicine at Gulbarga Medical College and my wife, Obstetrician and Gynecologist, started her Nursing Home and we settled in Gulbarga. Dr. KS Mani, Prof and Head of Neurology, at the just formed NIMHANS, Bangalore was on the look out for fresh faces to join his Department. He came to know about me through Dr. Wadia and when he visited Gulbarga to give a guest lecture, he spoke to me and my wife persuading us to move to Bangalore. We did not entertain this idea, and forgot all about it until I received an application from NIMHANS to apply for the post. After a lot of persuasion by Dr. KS Mani we wound up our establishment at Gulbarga and moved to Bangalore in 1976. The first thing Dr. Mani told me was that I should be prepared to accept the post of Lecturer in Neurology at NIMHANS, from being an "Associate Professor in Medicine" at Gulbarga Medical College, for which I readily agreed, as I was keen to pursue an academic career in neurology. The brief stint in NIMHANS is very memorable. A structured teaching programme was in place, the camaraderie between various department was enjoyable, as was the clinical teaching and interaction with students.

At that time only two students were taken per year for DM; we were more like a family and my wife used to host small parties for all the residents particularly during Diwali, which we all still cherish.

Due to financial constraints, I had to take a painful decision of resigning from NIMHANS, in 1982. Some of my friends like Drs. Deshpande, Vidyasagar and Kalyanasundaram also left NIMHANS for the same reason, (if I had the present day pay scale and the perks and benefits I am sure I would not have left the coveted post at NIMHANS!).

My mentor Dr. KS Mani had already left NIMHANS and started practice and I remember him telling me that I was the first full time practicing neurologist with DM (Neurology) in Bangalore, while he himself was a “pseudo neurologist”! My association with him continued and in fact strengthened further. He initiated me into field of epilepsy, in particular the social aspects. I was his co-worker in the well known and often quoted “Yelandur study - a rural epilepsy project”. The project was for five years.

My basic interest is teaching clinical neurology, which I have been doing for the last 25 years, so much so that I am popularly known among postgraduates who say “if it is wednesday it is HVS’s class” I am a regular ‘outsider’ to the Saturday mortality meetings at NIMHANS. I have actively participated in the teaching programmes, symposia and seminars, with a focused vision of teaching clinical neurology to postgraduates in medicine.

I was trained in the pre CT Scan era where neurological investigations included direct puncture carotid angiography, pneumoencephalography and burrhole ventriculography - from today’s standards these investigations seem barbaric. I learnt imaging techniques like CT and MRI along with my students.

The flipside of the advances in neuroimaging and other investigation are that the present generation of medical doctors, especially the primary care physicians, feel that history taking and

neurological examination can be bypassed and investigations ordered right away. Unfortunately this is not so and may in fact mislead the clinician to a wrong diagnosis. I emphasise that clinical diagnosis is far more important today – not only to order appropriate investigations but also to interpret the investigative results.

After starting practice, I felt there was a need to have a forum wherein the neurologists and neurosurgeons working/practicing outside NIMHANS can interact with faculty of NIMHANS and thus an informal “Neuro Club” was formed in 1983 of which I was the founder member and Secretary. It was an arduous task to start off but it was well worth it in the long run. As membership to the Neuro Club grew, a formal Society, Bangalore Neurological Society, was formed in 1993 for which once again I was the founder secretary. The Society is in full flow today, with monthly clinical meetings, held with absolute regularity, orations and its own website.

Dr. KS Mani inducted me into the Indian Epilepsy Association and I took up several organizational posts both at the local and national levels and along with him I actively pursued the goal of public education to create awareness about epilepsy. I was the Organising Secretary for the very first Annual Conference of Indian Epilepsy Association held at Madras in December 1993 and also for the Conference held at Bangalore in December 1994. In 2001 when I was the Secretary General, a website was created for IEA. The Annual conferences of IEA used to be held with IAN and NSI conferences. The first stand alone conference of IEA was held in February 2009 at Tirupati when I was the Secretary.

I was the driving force behind starting the Distance Education Programme leading to Diploma in Epilepsy Care (DEC), a course

for non medical persons , in collaboration with CBR and Bangalore University, the first of its kind in South East Asia. Three batches of students have already completed the course. On behalf of IEA ground work has been done to liberalize the driving license regulation in keeping with the advances in the west. The long awaited Karnataka State Neurosciences Academy was formed in 2010 of which I was the founder President. I am currently Chairman, South East Asia Regional Executive Committee, International Bureau for Epilepsy (IBE) 2009–2013; President, Indian Epilepsy Association, Central Office 2011–2013.

Some of the orations I have delivered include: H.C. Bajoria Oration at Joint IEA-IES Conference, 2002; Dr. B. Muralidhar oration, Tirupati, July 2003; YP Vittal Endowment Lecture at Bellary, 2006; KS Mani Memorial orations at (i) IEA, Cochin, 2008 (ii) Sahyadri Neurocon 2009, Shimoga (iii) Bangalore Neurological Society,2009; IMA Dharwad Diamond Jubilee oration, Dharwad, May 2010; Tirupati Oration in Epileptology, Tirupati, December 2010.

During my tenure as President of IAN I embarked on a project to create “IAN guidelines for management of common neurological disorders” i.e. headache, stroke, parkinson’s disease, neuro infection, etc with the support of neurologists working in the respective fields.

My wife Dr Pushpa Srinivas is a long time friend and classmate right from undergraduate days. She recently retired as Professor of OBG from Bangalore Medical College. We have two children a son, HS Sachin who is a Management Consultant in New York married to Aparna a Biotechnologist; a daughter Minoti married to Mukund, both architects, staying in Sydney. We have 3 lovely grand daughters, who are aged between 3 and 6 years and whose company we always look forward to. It is often asked “why is it

that grandparents and grandchildren are so close to each other” ?
the answer is “because they have a common enemy (parents)” and
we too are no exception to this.....

I am currently Visiting Consultant and Postgraduate teacher for
DNB Neurology, Narayana Institute of Neurosciences, Narayana
Hrudayalaya; Consultant Neurologist at Agadi Hospital and Sagar
Hospital, Bangalore.





DR. KURUPATH RADHAKRISHNAN

President—Indian Academy of Neurology
(2009–2010)

I was born on 15 June 1948 at the Kurupath House in the village Mathur, Palakkad district, Kerala as the second of the five children of my parents, late Dr. T Madhavan Nair and late Smt. Kunhilakshmi Amma. My father, who was a specialist in chest diseases and tuberculosis, had tremendous influence in inducting me to medical profession and shaping my career as a doctor. My mother was a housewife.

I started my schooling in the fourth class at the Lower Primary School, Mathur. It was a common practice those days for children from aristocratic families to have their early tutoring at home and join school later. I finished my higher secondary education at the Government Secondary School at Kottayi, Palakkad by scoring highest marks in the school in the SSLC examination, which as far as I know has not still been bettered. After two years of pre-degree course in biology at the Government Victoria College, Palakkad, I started my medical education at the Calicut Medical College, Calicut (currently, Kozhikode), Kerala. I was one among the three best students in MBBS and won gold medals in physiology and medicine. In 1973, I joined the Postgraduate Institute of Medical

Education and Research (PGIMER), Chandigarh for MD in Internal Medicine, and subsequently for DM in Neurology.

My career as a neurologist

I started my career in neurology at PGIMER, Chandigarh, one of the foremost institutes of national importance for postgraduate studies in our country. I was fortunate enough to be mentored by Professor Jagjit Singh Chopra, a great teacher and researcher, the then Head of the Department of Neurology. What can be more satisfying for me than becoming the President of the organization founded by my own mentor? It is from him that I learned how one can effectively amalgamate the three functions as doctors we have to undertake namely patient care, teaching and research. During my stay in Medical University, Benghazi, Libya, I became interested in neuroepidemiology, the study of the distribution and determinants of neurological diseases in the community. High quality publications emanated from the studies conducted there came to the notice of the late Leonard Kurland of the Mayo Clinic, Rochester, Minnesota, USA, who is frequently referred to as the '*Father of Neuroepidemiology*'. Len, as we called him, taught me how to meticulously select, plan and execute clinical research, and unambiguously communicate the results to the medical community. I was fortunate to receive training in electroencephalography from Donald Klass of the Mayo Clinic, the most reputed living legend in electroencephalography. When I returned to India in 1994 and joined as the Head of the Department of Neurology, Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST), Trivandrum, the above described multinational experiences helped me shape my career as a neurologist, neuroepidemiologist and epileptologist. I did Fellowships in neuroepidemiology, EEG and epilepsy at the Mayo Clinic, Rochester, MN, USA.

During the last 17 years, I developed the Neurology Department of the SCTIMST, into one of the best neurology centers in our country. Under my leadership, subspecialty programmes in epilepsy, movement disorders, cognitive and behavioral neurology, stroke and sleep disorders were established. I took over as Director of SCTIMST, Trivandrum, on August 1, 2009, a position which was earlier occupied by stalwarts like Dr. MS Valiathan and Dr. K Mohandas.

The R. Madhavan Nayar Center for Comprehensive Epilepsy Care, Trivandrum

The major contribution to which I am credited with is the establishment of the R Madhavan Nayar Center for Comprehensive Epilepsy Care, Trivandrum (RMNC), the only one of its kind in the country. The RMNC was established in 1998 with a generous donation of rupees fifty lakhs from Sri R Madhavan Nayar, industrialist and philanthropist, with the following objectives: 1) medical, surgical, psychosocial and occupational management of individual patients with epilepsy; 2) educate the primary and secondary care physicians about the current trends in the management of epilepsy, and enhance public awareness about epilepsy in order to dispel the prevailing misconceptions; and 3) undertake clinical, applied and basic science research and evolve cost-effective investigative and treatment strategies.

Advance epilepsy care

The RMNC has developed into a center of excellence for epilepsy surgery in India and is attracting patients not only from our country but also from neighboring countries. This center undertakes approximately 800 long-term video-EEG monitoring and 100 epilepsy surgeries annually. It performs all kinds of epilepsy

surgeries including temporal and extra-temporal resections, hemispherotomies, corpus callosotomies and vagus nerve stimulator (VNS) implantation. Till date, more than 10,000 patients from all over India and from neighboring countries have been evaluated for refractory epilepsy and more than 1300 epilepsy surgeries have been performed with success rates comparable to any other epilepsy center in the world at a minimal cost. The center has incorporated sophisticated investigative modalities like functional-MRI (fMRI), EEG-fMRI, diffusion tensor imaging, PET, SPECT and intracranial monitoring in the presurgical evaluation of epilepsy patients. It was reported in a recent publication from the center that 77% of patients were seizure free and 53% have even stopped medicines after five years of surgery. A patient satisfaction survey revealed that 93.5% of patients appreciated the benefits from surgery. With the realization that many more epilepsy surgery centers will be required to serve the vast population of India, RMNC has helped other centers in India such as National Institute of Mental Health and Neurosciences, Bangalore, Nizam's Institute of Medical Sciences, Hyderabad, KEM Hospital, Mumbai, PGIMER, Chandigarh, Lourdes Hospital, Kochi, Poona Neurological Institute, Pune and CARE Hospital, Hyderabad in developing epilepsy surgery programs. The RMNC also actively participated in the development of epilepsy surgery program at National Hospital of Sri Lanka.

Rural epilepsy care

More than two-thirds of patients with epilepsy reside in rural areas with limited access to specialized care. Realizing this, RMNC established epilepsy clinics in two relatively backward areas of central Kerala, which are running successfully for the last 15 years at Primary Health Center, Changramkulam, Malappuram and Ansar Hospital, Perumpilavu, Thrissur. Nearly 60 patients are

examined and counseled in each clinic by a neurologist and medical social worker. The RMNC, in collaboration with local or regional social organizations, conducts three to four epilepsy camps in different rural parts of Kerala and neighboring states every year for the last ten years. Approximately 100 patients with epilepsy are examined and counseled at each such camp by a group of neurologists and medical social workers. Patients requiring more advanced care and investigations are further evaluated at RMNC. One hour sessions comprising brief lectures and questions and answers are conducted at each camp for the patients.

Public education

In one study conducted by RMNC among the highly literate population of Kerala, 27% of respondents thought that epilepsy was a form of mental illness, 11% objected to their children playing with a child with epilepsy, and 44% objected to employing a person with epilepsy. Hence a need for increasing the general awareness and understanding of epilepsy in lay public through effective public education programs was realized. For the last 15 years, group meetings for the persons with epilepsy and their care-givers have been conducted at each of the rural epilepsy clinics every month. In these sessions, participants share their experiences and professional team comprising a psychologist and a medical social worker reinforce positive approaches, attitudes and achievements of participants. In addition, information about the psychosocial, educational and employment aspects of epilepsy are provided.

Human Resource Development

Every year, SCTIMST, Trivandrum, offers 2-3 postdoctoral fellowships in epilepsy at RMNC. Fellows learn about managing all kinds of epilepsies especially difficult to control epilepsies.

Additionally, many neurologists and physicians visit RMNC for short-term observership and training. The fellows have established comprehensive epilepsy care centers in different parts of country and in Sri Lanka, Nepal and Bangladesh.

Research

One of the major missions of RMNC is to carry out basic, applied and advanced research in all areas of epilepsy. RMNC has carried out community level research about burden of epilepsy, psychosocial issues in epilepsy including marriage and employment concerns of people with epilepsy, and knowledge, altitude and practice surveys among different population groups. The success of step-wise and non-invasive approach to presurgical evaluation, pioneered by RMNC has led to its adaptation across different centers of the world. RMNC is also involved in conducting basic research about pathogenesis and genetics of refractory epilepsy. All the research has been documented through more than 50 articles published in international journals.

I am the first neurologist in the country to be awarded Membership of the National Academy of Medical Sciences (neurology) in 1980. In 1981, I won gold medal for the best research from Neurological Society of India. I was awarded the prestigious Mayo Clinical Award in 1994. I have nearly 250 scientific publications to my credit and have edited several scientific books. With over 1500 citations, I am one of the most frequently cited neurologists of the country. I am a Fellow of Indian Academy of Medical Sciences and American Academy of Neurology, and a Member of American Neurological Association. In addition, I am a Life Member of Neurological Society of India, Indian Epilepsy Association, Indian Epilepsy Society and Indian Academy of Neurology. I held the prestigious position of the President of the Indian Academy of Neurology during 2009-10.

My younger brother, DK Gopinatan, after retirement from the Kerala Health Service, is currently practicing at Mathur. I am married to Dr. P Jayalakshmi, who is working in the Regional Cancer Center, Trivandrum as a specialist in Blood Transfusion and Immunohematology. Both my children decided to become engineers. The daughter, Nisha, after her PhD from IIT, Bombay in remote sensing and global positioning system, is currently employed as an Assistant Professor at the National Institute of Technology, Trichi, Tamil Nadu. The son, Nitin, is a hardware engineer with the Cisco, San Jose, CA, USA. Both of them are married. My grandson, Ayush, is four years old. We are a closely knit happy family.

I am currently Director of SCTIMST, Trivandrum.





DR. ASHOK PANAGARIYA

President—Indian Academy of Neurology
(2010–2011)

*D*r. Ashok Panagariya was born in Jaipur into a bureaucratic family on 22 August 1950. His father was a freedom fighter and later joined the State Services. Apart from being a bureaucrat, he was a great academician and a visionary. He, in fact, was responsible for inspiring Dr. Panagariya to join the medical profession.

He joined the medical college in 1967 and graduated with distinction and was awarded the SS Bhatnagar Gold Medal. During his postgraduate training in Internal Medicine, he was awarded the Senior Research Fellowship by the Indian Council of Medical Research (ICMR). In 1976 he passed MD (Medicine) and was subsequently selected as a Lecturer/ Assistant Professor at the SMS Medical College, Jaipur, the position in which he served for 5 years. He was popular among the undergraduate and the postgraduate students. Those were the years which shaped him gradually into a teacher. He helped many students in editing their theses, which sharpened his own writing skills. He enjoyed teaching and also used to take his juniors out for an ice-cream, often, after the classes. His students, many of whom are now faculty members in the SMS Medical College itself, still remember those good times very fondly.

According to Dr. Panagariya teaching is the best way of learning. He was the Secretary of the State Medical Association and also served as the central executive of the Indian Medical Association.

In January 1981, he joined DM (Neurology) at the prestigious PGI Chandigarh and passed out with flying colors in December, 1982. His helping and outgoing nature won him many friends at the Institute.

Dr. Panagariya returned to SMS Medical College, Jaipur, as Assistant Professor of Medicine (Neurology). Later, he had the opportunity of visiting John Hopkins, Baltimore, USA and Nottingham, UK for higher training. In 1991 he was appointed as Associate Professor and Head of Neurology Division and later as Professor/Sr. Professor in Neurology, the position in which he served till his superannuation.

His knack of clinical teaching was his major strength. His precise and straightforward approach to clinical neurology made the subject enticing to the aspiring young students of neurology. In the wards he was always a hard task master but simultaneously a caring and appreciative guide to his students.

When Dr. Panagariya joined the SMS Medical College in 1983, he was the first qualified neurologist of the State. The Department of Neurology was in its infancy and was part of a medical unit. By the efforts of Dr. Panagariya an independent department was created with all the basic facilities relevant to neurology. He strived hard to build the infrastructure, the faculty and the associated departments in neurology. In 1998 permission was granted to the department for conducting the DM Neurology Course which was recognized with effect from 2002 and so far more than 20 students have passed out from the Institution. When Dr. Panagariya

superannuated in 2010, his department had nine faculty members, including himself, eight seats of DM Neurology course every year, and complete academic and research infrastructure. The department has been recognized as one of the best in northern India and treats patients from adjacent states.

He has nearly 35 years of teaching experience and has been a professor for more than 15 years. He is a teacher of repute and a keen researcher. He has published around one hundred research papers in various international and national journals. He is the author of a chapter on 'Parasitic Infections of the Nervous System' in the prestigious Bradley's Book on Clinical Neurology published from Florida, USA. He is the Associate Editor of the Year Book of Neurology and Neurosurgery, from 2007 till date, published by Mosby, an imprint of Elsevier, Philadelphia. He has delivered many orations and chaired many national and international conferences and contributed chapters to the textbooks of Medicine, API and Annual Reviews in Neurology, in India. He was recently inducted as referee to the prestigious International Journal of Neurosciences. During his tenure as Senior Professor of Neurology he contributed to research and his work on neuromyotonia, neuroleptic malignant syndrome, stroke, epilepsy and many other subjects has been highly rated.

Dr. Panagariya was awarded the Dr. BC Roy Medal in 2003 for his outstanding contributions for developing neurology in north-west India by the President of India. He has also remained Locum Consultant in England and was invited by Mount Sinai, NY and Ann Arbor Detroit as a Visiting Professor.

In 2006 he was appointed Director of the SMS Medical College and later served as Vice Chancellor of Rajasthan University of Health Sciences. He was awarded the Fellow of Royal College of

Physicians (FRCP), UK in 2008. As Principal of the SMS Medical College his innovations in administration pertaining to academics, research and teaching put the medical college in the top bracket. SMS became one of first medical colleges where stem cell research facilities, in vitro fertilization and bone marrow transplant were made available. On his superannuation, the Government honored him by making him Member, State Planning Board with a State Minister's rank.

Dr. Panagariya also started an NGO in 1986 and since then has been providing services to the needy through the Neurology Care and Research Society and periodically conducts public education programmes on epilepsy, stroke, Parkinson's disease and dementia. As Organizing Secretary, he organized a memorable conference of the Indian Academy of Neurology in 2005, which was considered a bench mark by many of the subsequent organizing secretaries. Dr. Panagariya remained the executive member of the Indian Academy of Neurology from 2006-2010, later he was the President Elect and now is President of the Indian Academy of Neurology.

He has special interest in rural medicine and under his supervision rural epilepsy clinics in the village setting, catering to thousands of patients, continue to run.

Dr. Panagariya experienced certain instances during the practice of clinical neurology, which he thought, were beyond human comprehension, often termed by the layman as 'miracles'. This inspired him to learn the art and science of astrology and acquaint himself with extra sensory perceptions, and subsequently he developed interest in the, "Brain, Mind and Body Medicine" and Neurotheology. He was also invited by the Dalai Lama Foundation for a delivering a talk in the India International Centre, Delhi on "Science of mind and the way to happiness".

He is the Member of the Medical Council of India; is on the Executive Committee of the Institute Body of PGI, Chandigarh and is also on certain committees of the ICMR. He is the Honorary Neurologist to the Armed Forces of India, nominated by the Defence Ministry. He is also the Indian representative of the American Association of Physicians of Indian origin (USA).

Dr. Panagariya is also recognized as an astrologer of repute. He is also a freelance journalist, contributing to political, economic and social issues in the print media. His articles on philosophy of health and happiness have also appeared in a few English magazines.

He is married to Smt. Meena Panagariya, who has been an unwavering support in balancing his personal and professional lives. She is a devoted housewife and mother. She is currently also serving an NGO involved in the education of the underprivileged children. They two daughters and one son, all of whom are very well placed. Both his daughters have done their Masters in Business Administration. His son is a qualified lawyer and is presently working with a law firm. He has two granddaughters.

Dr. Panagariya is currently looking after the policy planning of the State Planning Board and is an Advisor to the Government of Rajasthan on health, medical education and other relevant issues.





DR. P SATISHCHANDRA

President-elect—Indian Academy of Neurology
(2010–11)

I was the fourth of six children born to Dr. Parthasarathy and Smt. Sarojamma at Chitradurga in Karnataka on 13 September 1953. My father, who was a District Veterinary Officer, was an honest and hardworking government servant who tried to bring up his children instilling these very virtues. Ours was a middle class family, very close knit, with every child being encouraged to be independent at an early age.

As I was one of the youngest and my father retired when I was 9 years old, I had to face several challenges, not the least of which was financial. I had academic ambitions, right from childhood, but due to our limited means, I had to start earning and supporting my education at the tender age of 12 years by taking tuitions for younger children. Fortunately, I was a good student, always standing first in class and was able to get scholarship throughout my studies. I passed SSLC when I was 14 years as a rank holder and obtained a Government of India National Merit Scholarship which sustained my education. I then joined pre-university at the prestigious National College, Basavanagudi in Bangalore but had to wait for a year to join medicine (to preserve that scholarship) as I was underage. I joined MBBS in 1969. It was a momentous day

for me and through the government scholarship was able to finish my undergraduate education at Bangalore Medical College. In 1974, I successfully completed MBBS with credit and am the only doctor in my family in several generations!

PG education

I had keen interest to pursue neurology right from my final year MBBS and wanted to join the prestigious National Institute of Mental Health & Neurosciences (NIMHANS). With that ambition and great trepidation, one fortunate morning I took great courage and met Prof. KS Mani, by then a well-known international neurologist and epileptologist, a great teacher and a disciplinarian. I am not sure what he saw in this passionate, yet very nervous young man, but sensing my enthusiasm and interest for the subject even at that first meeting, Prof. KS Mani gave me an opportunity to join NIMHANS as a non-course resident (honorary i.e. with no stipend/salary). Here I was, a young man with lofty dreams but no money, agreeing to work without pay, just to learn neurology! Fortunately, my mother encouraged me to follow my dreams and not worry about the finances. Being a strict teacher, Dr. KSM warned me that I needed to work full time like any other person though without stipend! He was impressed by my work and dedication and within two months asked me to get a few more of my classmates who like me might be interested in becoming neurologists. Dr. Manjunath and Dr. TG Suresh joined me at NIMHANS. Then was born the NIMHANS residency programme and finally I started earning my stipend of Rs.550 per month as a Junior Resident in Neurology.

In 1977, I was selected for the DM PG Residency program at NIMHANS which was a five year DM course in Neurology along with three of my other friends Dr. MS Manjunath, Dr. R Srinivasa

and Dr. Hormes Taliath. We were a gang of four—all Prof. Mani’s and later Prof. M Gourie-Devi’s protégés and hoping to follow their footsteps. Prof. M Maiya, retired professor of medicine from Bangalore Medical College was another major source of support and encouragement during this phase of my life.

I qualified as a Neurologist in 1981 and was selected for the faculty post in the same year itself. However, because of bureaucratic issues I had to remain unemployed yet again for six months. However, during this time I was able to help the Department of Neurology at NIMHANS to conduct a well acclaimed international meeting in neurovirology, which was attended by none other than Prof. Carlton Gajdusek, the Nobel Laureate who was a great inspiration to me.

Faculty in Department of Neurology

A. Research

I have 197 publications to my credit so far. Of these 45 are invited chapters in books and monograms. I have also edited and published three books.

1) Epilepsy

Working under the guidance of Prof. KS Mani the ‘Father of Indian Epileptology’ and internationally acclaimed neurologist and Prof. M Gourie-Devi, I developed keen interest in pursuing epileptology. I was fascinated and challenged by the work of Prof. KSM in the area of ‘hot water epilepsy’ (HWE) and started my own scientific enquiry into the pathogenesis of this unique form of epilepsy, which is highly prevalent in South India.

In 1986, I was selected for the International Neurosciences fellowship under a WHO-NINDS sponsorship. I went to NIH, Bethesda, USA and worked for a year as a visiting fellow under

Prof. Bruce Schoenberg, an internationally acclaimed neuroepidemiologist at NIH. I also had an opportunity to work with stalwarts like Prof. William Theodore, Prof. Fritz Dreifuss and Prof. Roger Porter which honed my skills and enhanced my zeal to work in the area of epilepsy. After completing my visiting fellowship, which lasted for 15 months, during which I worked at NIH and NINCDS in neuroepidemiology and developed a model for predictors of intractable epilepsy, I returned to NIMHANS. I continued my interest in the field of neuroepidemiology and had an opportunity to work with Prof. M Gourie-Devi in conducting a Bangalore urban rural neuroepidemiological (BURN) survey with a database of 102,000 population in and around Bangalore. This was then the first large scale population based neuroepidemiological survey in India. We also wrote a manual for conducting neuroepidemiological surveys in developing countries. At this juncture, I met a young and intelligent physiologist, Dr. Gouthm Ullal from MS Ramiah Medical College who was equally passionate about epilepsy and thus started a fruitful collaboration. We worked together for several years, working on sundays and holidays and developed an animal model for hot water epilepsy. This was my first foray into true translational research (which was probably not the buzz word as it is now!) and used the knowledge from this animal model to help patients with this unique form of reflex epilepsy. We proposed the hypothesis of hyperthermic kindling as the basis for this interesting type of reflex epilepsy. I then continued my research further in the area of functional imaging of HWE (SPECT) with Dr. Kallur, a nuclear medicine expert. We were successful, through imaging, in identifying the medial temporal structures – amygdala and hypothalamus as sites of functional impairment in HWE. Following this, I started working on genetic aspects of HWE in collaboration with Dr. Anuranjan Anand at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore, and we

successfully found the linkage and very recently were able to find a gene for HWE which has received international recognition. Our dreams were however realised even more, when recognising our work, HWE was included in the proposed classification of epilepsy by ILAE and we were invited to contribute chapters in the international monographs on epilepsy.

2) In addition to HWE, during this period, I was also pursuing research in 'Lafora's disease' with Dr. Ganesh Subramanyam from IIT, Kanpur. We were able to successfully identify a new gene (EPM2b) for Lafora's disease for the first time with *malin* as the protein responsible for this condition.

3) *HIV Neurology*

From 1986, the effect of HIV infection on the nervous system came into light in India and I developed interest in the field of Neuro AIDS. We constituted a multidisciplinary team of scientists at NIMHANS who studied the various aspects of Neuro-AIDS. In collaboration with Dr. Udaya Ranga from JNCASR, Bangalore, we identified that the HIV I Clade C was the cause for HIV infection in the country and absence of Tat protein cysteine was the probable reason for lower prevalence of AIDS dementia in our country.

During this period, we also received a prestigious NIH RO1 grant to collaborate with the University of Miami, USA to study cognition in HIV infection focusing on minor neurocognitive disorder and longitudinal progression of cognitive deficits in HIV.

B. Teaching

From a young age, I enjoyed teaching and have been passionate about teaching neurology to young students of medicine, psychiatry, neurology, neurosurgery and paediatrics. For me, teaching has been as important as my research. Teaching young

minds has helped me keep my brain sharp and everyday I learn something new from students who challenge me to stretch my limits.

C. Community services

Under the inspiration of Prof. KS Mani and Dr. HV Srinivas a well known epileptologist from Bangalore, I joined the Epilepsy Association as a member of IEA, Bangalore Chapter and worked on various social aspects of epilepsy including developing a 'street play model' for epilepsy education and awareness. Being involved in IEA, I have been able to conduct epilepsy exhibitions for the common man and students, deliver lectures to create awareness about epilepsy and also work with schools and colleges to destigmatise this condition.

D. Patient care

Though I have mentioned it the last, my primary passion and main inspiration for all my work have been my patients. I believe that giving affordable, holistic and quality neurological care to the poorest and neediest in our country should be our primary mandate and I have always striven to give my best to patients.

E. Awards and honours

Apart from my initial WHO-NINDS International Neurosciences fellowship at NIH, USA, I received Raymond-way Lecturership at Queen Square, London for 6 months during 1999-2000. During this period, I worked with Prof. Trimble, well known internationally for his work on epilepsy and psychiatry and also worked on MR Volumetry and epilepsy psychosis with Prof. Duncan and Prof. Trimble.

In recognition of my work, I received the following honours:

Awarded (i) Sir CV Raman Young Scientist Award, by Government of Karnataka, in recognition of the contribution in the field of medical science, in 1997 (ii) Fellow of Indian Academy of Neurology (FIAN) in 1998 (iii) the prestigious "Amruth Mody Unichem prize" for Neurology for the year 1998 by the Indian Council of Medical Research (ICMR), New Delhi. This was for outstanding research in Epilepsy (iv) Dr. BC Roy 'Doctor's Day Award' by IMA-CGHS, Bangalore, July 2003 (v) Fellow of Academy of Medical Sciences (FAMS) by the National Academy of Medical Sciences, New Delhi. 2003 (vi) Asia Oceanian Outstanding Achievement Award in Epilepsy from Commission on Asia Oceanian Affairs, ILAE at the opening ceremony of 8th Asia Oceanian Epilepsy Congress held at Melbourne, Australia on 21st October, 2010 for outstanding contributions to the field of epilepsy.

Research awards

I have received the Hindustan Ciba Geigy-Gold medal for the best paper in epilepsy in two consecutive annual conferences of NSI in 1991 and 1993 and best research paper awards during annual conferences of Indian Academy of Neurology in 1996, 2006, 2007 and 2008; also won awards in 'Epilepsy conference (ECON)' in 2004 at Lucknow and two awards in 2005 at Jaipur. The paper was also selected for 'Young Investigator Award' in the International Epilepsy Congress at Oslo, Norway in 1993.

I have also delivered a number of lectures/orations; important among them are: (i) JIPMER Scientific Society lecture delivered when I was a Visiting Professor in the Department of Medicine at Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Pondicherry in November 1997 (ii) Sarabai Oration at Association of Physicians of India in January 1997

(iii) George Burden Memorial International Lecture at British Epilepsy Conference held at Edinburgh, UK in March 2000
(iv) Mr. Sanjeev Rao oration at Nizam's Institute of Medical Sciences, Hyderabad in December 2000 (v) Dr. KS Mani oration at Kochi in 2006 (vi) Abdul Gafoor Memorial Oration at Calicut in 2009 (vii) Abdul Gafoor Memorial Oration at Kerala Neurology Society, 2011.

F. Administrator

With four new official titles and responsibilities being granted to me, 2010 was a landmark year in my life! I was nominated as the President elect of the Indian Academy of Neurology (IAN), Vice-President of the Indian Epilepsy Society (IES) and President of Bangalore Neurological Society (BNS). In June 2010, I was selected as the Director/Vice-Chancellor of my alma mater, the prestigious National Institute of Mental Health and Neurosciences (NIMHANS) at Bangalore. I believe that this is a God given opportunity to repay my debts to NIMHANS, the wonderful institute which taught me neurology and gave me space to pursue my passion all these years.

I have been inspired by the speech made by Martin Luther King Jr in 1963 in which he spoke about his dreams for his country. Today, I have two dreams – the first is for my institution and the second for my country.

For NIMHANS, I hope that I will be successful in enabling it to evolve into an 'Institute of National Importance' and continue to be a leading light for neurosciences and mental health in the country – a status which it richly deserves!

For the country, I would like to see that the National Epilepsy Control programme (NECP) takes wings in the XII five year plan

and every child and common person living with epilepsy in India be treated effectively and live not with stigma but with hope.

Neurology has been my passion all these years and has left with me little time for my other interests. However, I am an avid cricket fan, enjoy classical music and gardening, particularly growing roses and in my pastime read economics for fun!

My wife Prabha, is a Professor of Psychiatry at NIMHANS who has always been encouraging my work and aspirations. I have a lovely talented, bright, self made daughter, Meghana who is a budding lawyer from the National Law University. Both of them understand my dream and fully support my work for my Institute and the country. My biggest relaxation is to be with my family and play with my Labrador, Laika.

As a young medical student from a lower middle class family with no family backing or professional godfather, reaching this far has been nothing short of a miracle. I thank the Almighty, my parents and teachers for helping and guiding me at every step in this endeavour.

I am currently the Director/Vice-Chancellor of NIMHANS, Bangalore.



Presidents (Neurologists) of
NEUROLOGICAL SOCIETY OF INDIA



DR. TK GHOSH (1912–1996)

President—Neurological Society of India
(1953)

by Dr. Kalyan B Bhattacharyya

*I*f one has to choose the founder of neurosciences in West Bengal and the Eastern part of India, the palm goes unhesitatingly to Dr. Tarit Kumar Ghosh. Everything said, he is the first pure neurologist in this part of the country and in every analysis, he initiated the scientific practice of neurology in Calcutta.

Dr. Tarit Kumar Ghosh was born on 23 January 1912, the day Netaji Subhas Chandra Bose, the valiant freedom fighter from Bengal, was born in 1897. He was groomed in a middle-class family in Howrah, and he had his moorings quite early in life in the freedom movement, organised and propagated by Mahatma Gandhi, that gripped the entire intelligentsia throughout the length and breadth of India. He passed SSLC in 1929 with distinction and the intermediate examination, two years later. While he appeared for the interview for admission at the Carmichael Medical College, now named RG Kar Medical College, Sir Kedar Nath Das, known universally for devising the Das obstetric forceps, and a formidable personality, was the Principal. Dr. Ghosh performed admirably and was interviewed later by luminaries like, Dr. Bidhan Chandra Roy, the peerless clinician and later, the Chief Minister of West Bengal who passed both the MRCP and FRCS examinations in London,

Sir Nilratan Sircar, a physician of great repute and the chief physician to Rabindranath Tagore in his terminal days, and Sir UN Brahmachari, the discoverer of urea stibamine for the treatment of Kala-azar. He stood first in the interview and at the end of the first year, was chosen as the Class Assistant in physiology. Those were the days just following the Civil Disobedience Movement, initiated by Mahatma Gandhi in 1930. One day when all the students left the college in order to participate in a protest against the British excesses, SC Mohalanabis, his Professor of physiology, detained him for about ten minutes in the classroom and when nobody turned up, he said, *'You have done your duty as a Class Assistant and now you may leave to do your duty for the country'!*

Neurology was a fledgling discipline and there was no provision for specialized training in the subject those days. Dr. Ghosh observed that the only teacher who knew something about neurology was Dr. Bidhan Chandra Roy and he found his lectures arresting and compelling. He had the good fortune of serving as his House Physician and was soon admitted into his affections. Initially, he chose to specialize in internal medicine and cardiology and Dr. Roy appointed him as a Research Scholar in 1940 and paid him a sum of forty rupees a month from his own fund. Four years later, he funded a project on epidemic dropsy, where he inducted Dr. Ghosh and granted him one thousand rupees for the project. Meanwhile, he got admission for MD (Medicine) at University of Calcutta in 1944.

Dame Providence smiled on him when in 1947, Dr. BC Roy visited the USA and met Dr. IS Wechsler, Chief of neurology and neurosurgery at Mount Sinai Hospital, where he discussed at great length the possibility of training an Indian incumbent on neurology. The meeting turned fruitful and after returning to Kolkata, he asked Dr. Ghosh to proceed to New York. In 1948, soon after the

independence of India, Dr. Ghosh, a committed young man with a vision and a challenge ahead, combined with a queer feeling of uncertainty and trepidations, sailed in a cargo ship, since nothing more cozy, caring and comfortable was at hand. His sojourn to the port of Boston took him thirty-one days and then, with sea sickness and other attendant problems notwithstanding, he travelled to New York by train. He was received by Dr. Wechsler who arranged for his training in neuropathology with Dr. Joseph Globus, EEG with Dr. Hans Strauss, neurophysiology with Dr. Brickner, psychology with Drs. Weinstein and Khan, neuroradiology with Dr. Schlesinger, neurosurgery with Dr. Ira Cohen and experimental neurology with Dr. Morris Bender. Dr. Wechsler, himself, taught clinical neurology and supervised the total programme. Additionally, he introduced him to the librarian so that this young man from a developing country could have easy access to the books, journals and the reprints. He also started visiting other notable centres like, Johns Hopkins Hospital, Massachusetts General Hospital and the Philadelphia Medical College Hospital. In 1948, he had the good fortune of listening to Wilder Penfield, the outstanding neurosurgeon from Canada, and he vividly remembered one of his sayings, *'I believe that a new day will dawn tomorrow and that in its light will be found an understanding of the nervous system. Mental as well as physical activity will then be recognised as a function of the brain and neurosurgery and psychiatry will lose the separate authority conferred upon them by ignorance until there remains only neurology. Neurology will then stand forth as a single discipline to which internists, psychologists, surgeons, chemists and physiologists will contribute.'* When his tenure in the USA was coming to an end, Dr. Wechsler, along with John Fulton, the outstanding neurophysiologist, and Joseph Globus, the neuropathologist, called him and promised him a bright future in New York. However, Dr. Ghosh declined the offer and expressed his desire to return to India at the earliest.

Dr. Ghosh was always in communication with his mentor, Dr. BC Roy, during his period of stay at Mount Sinai and would apprise him about the need of an EEG machine for the diagnosis of epilepsy and some other neurological conditions. This was further buttressed by a letter from Dr. Wechsler, who certified his progress. He joined the Carmichael Medical College, his alma mater, and incidentally, from where Dr. BC Roy too, finished his undergraduate medical career, after being rusticated from Medical College, Bengal for his upright stance and righteous anger against the high-handed British administrators. Dr. Ghosh, however, had the uncanny feeling of not being much welcome and found the authorities reluctant towards the growth of neurosciences as a separate discipline and they even refused to purchase an EEG machine, and that too, after Dr. BC Roy, possibly, the most notable personality from Bengal had recommended.

Troubled by the horrors and harshness, trials and tensions in order to create a department in his alma mater, Dr. Ghosh realized that his life would soon be docketed into an insignificant hole and therefore, he chose to move to the Presidency General Hospital in order to initiate a new Department of Neurology, in spite of the fact that it was a teaching centre. Again, he was not treated favourably and was asked to set up his department in a derelict and decrepit corner of one of the dilapidated buildings and he soon refurbished it into a workable laboratory. He once wrote, *'At Dr. Roy's suggestion, in 1949, I went to Col. NC Chatterjee, Surgeon Superintendent..., with a scheme for the EEG department, a sketch plan and Dr. Frederick Gibbs' book on electroencephalography – my personal copy. These languished in the Writers' Buildings till 1951...'* His efforts in the new place were successful to a large extent and a new Postgraduate Medical Institute was created by the combined effort of some other luminaries of that time, which still exists as the forerunner for training postgraduate and post-doctoral students

in the city. After the EEG department was opened on the 2nd of May 1951 and inaugurated by Dr. BC Roy, he submitted a scheme for the creation of a combined department of neurology and neurosurgery and in 1954, the posts for one senior neurosurgeon, two junior neurosurgeons, one neurologist and one psychiatrist were sanctioned by the Government of West Bengal. True to his vision and foresight, Dr. BC Ray during one of his visits to Vienna, invited Dr. Herbert Kraus, the noted neurosurgeon, to come to Calcutta and train the aspiring neurosurgeons. Dr. Kraus came in 1955 and trained a number of them, most notably, Dr. Ashok Kumar Bagchi, the former President of the Neurological Society of India, who spent some time in Vienna with him as well.

A curious association took place between Dr. TK Ghosh and a noted industrialist, hailing from the Bangur family in Calcutta, who had been suffering from a tumour in the brain and Dr. Kraus operated on him. The surgery was successful and the patients' family happily donated a sum of rupees three lakhs which helped Dr. Ghosh establish the Bangur Institute of Neurology inside the premises of the Institute of Post-graduate Medical Education and Research. The Institute came into existence on the 10th of June, 1962, when Dr. BC Roy inaugurated it. This was his last public meeting, twenty-one days before his sudden death when the city was actually celebrating his eightieth birthday. Things took a turn for the worse for Dr. Ghosh after the demise of Dr. BC Roy and he was soon transferred to a different college. He summarily resigned from service though at a later date was appointed as Honorary Professor and Director in his old place of work, where he continued till 1971, the year of his retirement. Thereafter, he served as a Consultant in various hospitals and was inducted into the Board of a number of pharmaceutical companies, in various capacities, in Kolkata.

If Dr. Ghosh deserves the appellation of the founding father of neurosciences in Kolkata, it bears recall that another eminent neuroscientist from Kolkata, Professor RN Roy, considered to be one of the founders of neurosurgery in the city and the first ever Resident of Professor Jacob Chandy at the hallowed Christian Medical College, Vellore, continued from where Dr. Ghosh left, and his tireless effort, ably assisted by his contemporaries and students, helped the Bangur Institute of Neurology to achieve a place of eminence. However, by every analysis, Dr. Ghosh's greatest contribution to the growth of neurosciences in India was in the creation of the Bangur Institute of Neurology.

Dr. Ghosh had abiding and lasting connections with the Neurological Society of India and he was instrumental, among others, to disseminate the spirit of such an academic society throughout the country. When it was initially founded in Patna in 1951, it consisted of only four members, namely Jacob Chandy, B Ramamurthy, Baldev Singh and ST Narasimhan. Dr. Ghosh joined the next year at the insistence of Professor Ramamurthy and became its second President in 1953, succeeding Professor Jacob Chandy, while Professor Ramamurthy continued as the Secretary.

Dr. Ghosh's primary interest lay in the study of epilepsies and he conducted a number of studies on this subject, particularly based on the grants from the Indian Council of Medical Research. He was one of the earliest examiners for DM in neurology and incidentally Professor Gourie-Devi, the eminent neuroscientist, who was trained at the All India Institute of Medical Sciences with Professor Baldev Singh, was his first examinee in 1968. She once told me that Dr. Ghosh could recall the cases and her answers in the examination whenever he met her anywhere. He received the '*Most Prominent Teacher in Medicine Award*' from Calcutta University and the prestigious Barclay Medical Award of the Medical Society.

He was the President of the Science Club of Calcutta, Director of the Rotary Club, Calcutta and was also in the field of art and music in various societies of the city.

My personal association with Professor Ghosh was limited; I fastened onto neurology when he retired from active practice of neurology, both in terms of academic inputs and actual management of patients and he was then basking in the glory of the past and not even able to communicate properly. Though his failing health was not permitting him to function with the same vibrancy and ebullience, he did not lose much of his old vivacity and alacrity and was always ready to join an occasional meeting in the city. Whenever, I met him, I found him talking to the senior professors and I kept lurking behind somewhere, and yet I could feel his penchant for literary allusions, which again, was virtually the trademark of his generation. With all humility, I submit that he struck a responsive chord with me somewhere and somehow, though it is not yet clear to me how it all happened. Later in his life, he was particularly distressed at the quality of teaching in neurosciences, was particularly vocal about the system of recruiting teachers in the institute he built with his sweat and blood. Once he lamented, *'I had to fight and suffer in my persistent effort at creating facilities and providing a 70-bedded neuroscience institute. The progress, however, has been slow. Things have worsened since my retirement and will continue to do so unless the present incumbents are energetic and devoted. The separation of the departments of neurology and neurosurgery is a retrograde step. It is not pleasant to witness one's life's work being dismantled... but such is the world... The current status of neurology, neurosurgery and the neurosciences in general remains undefined, exposed to continuous onslaught from various quarters. Lure of financial gain and higher administrative positions induce some promising neuroscientists into joining the stream for power. Attempts are also noted to submerge the neurosciences into a secondary position. We need institutes of*

neurology in different regions of India and the performances of our neuroscientists must be re-evaluated... Neurologists are facing competition not only from specialists in general medicine but also from neurosurgeons who are usurping patients who do not have surgical problems. The co-operation between neurologist and neurosurgeon that we dreamt of has disappeared, There is senseless competition between them.' Once in a meeting at his residence, way back in 1987, when I was virtually a toddler in neurology, he asked me to join in order to listen to a few words about his disappointments and tribulations. He exclaimed in utter exasperation that his dreams had fallen apart and he had little in his life to look forward to. He died an unhappy man on the 9th of April 1996. Professor RN Ray from Calcutta, Professor Sunil Pandya from Mumbai and Professor S Kalyanaraman from Chennai have written exhaustively on his life and works. These are contained in a wonderful volume, entitled, '*Evolution of Neurosciences in India*', edited by Professor Rajasekharan Nair from Trivandram, Kerala. The legendary Professor B Ramamurthy too, alluded to his association with Professor Ghosh in his magnificent autobiography, '*Uphill All the Way*'.

(Dr. Kalyan Bhattacharyya is Professor & Head, Department of Neuromedicine, RG Kar Medical College & Hospital, Kolkata, West Bengal)

Photo courtesy-Dr. VS Saxena



My reminiscences of Dr. TK Ghosh

by Dr. RN Roy

*D*r. Tarit Kumar Ghosh was born in Howrah, West Bengal on 23 January 1912. He received his medical education at the then Carmichael Medical College (presently RG Kar Medical College) from 1931-37 and MD (Medicine) from Calcutta University in 1944.

My association with Dr Ghosh dates back to February 1957 when I first met him at the Neurological Society of India annual meeting held in Agra which was attended amongst others by Professor Wilder Penfield of Canada. Dr. Ghosh invited Prof. Penfield to visit his centre at Calcutta, the first Department of Neurology established by the Govt. of West Bengal at the SSKM Hospital campus, Calcutta in May 1955. Prof. Penfield visited the Department in 1957. Dr. Ghosh later told me that the idea of setting up an Institution of Neurology in Calcutta had taken roots in his mind after his meeting with Prof. Penfield.

The idea, however took time to take a concrete shape. Dr. Ghosh motivated a beneficiary, a patient belonging to an established commercial house in Calcutta, who was operated at the SSKM Hospital, to donate a handsome amount of money towards the

establishment of an Institute of Neurology. Accordingly the money was donated to Govt. of West Bengal and with the active support of the then Chief Minister Dr. BC Roy, the foundation stone of the proposed Bangur Institute of Neurology was laid on 10 June 1962. This event was perhaps the most significant contribution by Dr. Ghosh to the cause of neurosciences in the eastern part of the country.

Bangur Institute of Neurosciences (BIN) (as it is now called) has grown and become the foremost centre of training, teaching and research in neurology, neurosurgery and allied sciences.

Dr. Ghosh trained a number of postgraduate students during his stint of 30 years as a teacher of neurology at the Institute of Postgraduate Medical Education & Research (IPGME&R), Calcutta and BIN, Calcutta. Epilepsy was Dr. Ghosh's lifetime passion. He was a National Investigator on Epilepsy under the ICMR, a member of the Expert Committees of various Universities and similar Institutes in the country.

Among the various awards and honors he received were: the "Most prominent teacher in Medicine Award" of Calcutta University and the prestigious Barclay Medal Award of the Asiatic Society, Calcutta. He delivered the Ronald Ross Memorial Oration of IPGME&R, Calcutta. Prof. Ghosh was elected the President of the Neurological Society of India in 1953.

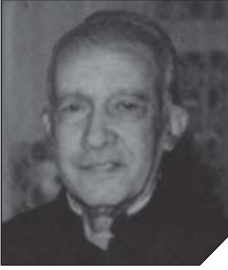
He had many other interests as well. He was President, Science Club, Calcutta, President, West Bengal United Nations Association of Calcutta (1963), Director, Rotary Club, Calcutta and President, Presidency College Alumni Association, Calcutta (1985-86). Prof. Ghosh was an active member of various musical societies of the city.

His wife, Mrs. Kalyani Ghosh is a distinguished singer of Rabindra Sangeet and has a number of albums to her credit. They are blessed with two daughters.

A father figure of neurology in the country, Dr. Ghosh passed away on 9 April 1996 after a brief illness.

(Dr. RN Roy is Senior Consultant Neurosurgeon, Park Clinic, Kolkata)





DR. MENINO DE SOUZA (1904–1996)

President—Neurological Society of India
(1957)

by Dr. Romnesh de Souza

*I*t was an honour to be asked by Dr. HV Srinivas to write about my grandfather Dr. Menino de Souza.

Dr. Menino de Souza was born on 6 July 1904. He came from humble beginnings. Having lost his father at a young age he was raised by his mother. His primary education was in Arpora, Goa, following which he attended St Xavier's College.

In 1930 he graduated from the Grant Medical College, and also got his MD from the same Institute. He underwent a one year training in neurology at the National Hospital for Nervous Diseases, Queens Square, London in 1948 after which he returned to Mumbai and rejoined the Grant Medical College. Thereafter he joined the JJ Hospital as Honorary Physician and initiated the setup for a Department of Neurology. He served as Dean of Faculty of Medicine in 1951. It is notable that one of the first electroencephalographs in India was installed at the JJ Hospital. He was joined in 1957 by Dr. Noshir H Wadia, who had spent five years in neurology with Sir Russell Brain at the Maida Vale Hospital and the London Hospital. Dr Menino encouraged and supported Dr. Wadia to develop one of the first comprehensive Departments

of Neurology in India, a fact which was much appreciated. He subsequently retired as Professor of Medicine in 1959 and Professor of Neurology in 1964.

Dr. Menino was passionate about teaching and established himself as a much loved teacher. "How to examine a patient" was a handbook authored by him which went into six reprints. In his Presidential address in 1957, he specially emphasized on the need to recognize the enormous importance of yoga - a science which needs to be explored by neurologists for its valuable contributions for control of autonomic nervous system.

His achievements are not restricted to the academic alone. He was also very active in the community and devoted considerable amount of his time to other activities. He served as President of the Catholic Students Union, Catholic Medical Guild of St Luke's Institution for the Deaf and Mute and St. John's Medical College. There is an auditorium named after him in the Biomedical Ethics Centre. An oration has been instituted in his name by the Medical Welfare Trust, Bombay. He also served as a municipal councilman.

Pope Paul VI recognized his invaluable service to the community and bestowed upon him the knighthood of St Gregory.

He was always supportive of young doctors just entering the field of medicine. To encourage interaction between senior and junior doctors he started the annual medical ball.

He was married to Alice de Souza. They had three children, Anne who is an accomplished writer and journalist, Stella Martins a psychiatrist and his son Dr Mario de Souza who has done his MD in internal medicine. Of his seven grand children, four have gone into the medical field and three have joined the business world.

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(Dr. Romnesh de Souza, Department of Neurology, Narayana Institute of Neurosciences, Narayana Hrudayalaya, Bangalore)





DR. EP BHARUCHA

President—Neurological Society of India
(1959)

by Dr. Nadir Bharucha

*D*r. Eddie P. Bharucha was born to Bachha and Phiroze Bharucha on 28 December 1916. As a child, following the death of his mother, when he was two years old, he spent most of his youth in Bombay with his father, an English governess, and a Jack Russell terrier called Bobbie, who had to be kept strictly under wraps, and came and went only by the back steps. He was educated, first, at the Cathedral and John Connon High School and subsequently at the Bharda New High School. He then joined the Elphinstone College and the Royal Institute of Science.

Shaped by several circumstances, including World War II, his training took several unexpected turns, but ultimately worked out for the best. After he completed inter-science, he was sent to England by his father, Dr P.C. Bharucha, who was a renowned physician in Bombay. He completed MBBS and MD at University College Hospital (UCH) in London. He was fascinated by Dr FMR Walsh's (later Sir Francis Walsh who was his father's contemporary at UCH) clinical approach to neurology. Even as an undergraduate, he regularly attended the weekly neurological demonstrations by world famous neurologists including Dr. Macdonald Critchley at the National Hospital for Nervous Diseases, Queen Square, London.

Shortly after the outbreak of the Second World War in 1940, he returned to India, having completed the necessary terms but before he could take the MBBS (London) examination. In due course, he completed MBBS in Bombay. He took up several house jobs and a registrarship in medicine at KEM Hospital, Bombay, and completed MD in Medicine. Thereafter, he was appointed as Honorary Physician in Medicine at KEM Hospital and GS Medical College in 1945. He completed MBBS (London) in 1947 and MD (London) in 1950.

Around this time, Dr. Ginde was sent to the Montreal Neurological Institute (MNI) to train in neurosurgery under Dr. Penfield. The plan was that he would return to head the new Department of Neurosurgery at KEM hospital. Aligned with this proposal, Dr. Bharucha was asked to establish the Department of Neurology at KEM hospital after training abroad in neurology. With the exception of 2 beds reserved for neurology in Dr. Menino D'Souza's medical ward at the J.J. Hospital and Grant Medical College (GMC), there was no other specialization in neurology in Bombay at that time. Dr. D'Souza had trained for 1 year at Queen Square and had started neurology as a specialty at J.J. Hospital thereafter.

Between 1949 and 1952, he trained in neurology at the Hospital for Nervous Diseases, Queen Square and Maida Vale Hospital for Nervous Diseases in London. These two institutions were later merged. He then proceeded to the US where he worked for three months each under Dr. Houston Merritt at Columbia University and under Dr. Denny Brown at Boston City Hospital. He returned to India in 1952 and the Departments of Neurosurgery and Neurology were inaugurated in January 1953 with 12 beds each.

Over the next 22 years, the Department of Neurology, nurtured by the contributions of several esteemed colleagues including

Drs. VP Mondkar, MD Manikal, RD Umarji, Sashi Seshia and PU Shah (neurologists), Dr. DH Deshpande, a neuropathologist, Dr. FN Kohiyar, (his sister-in-law who established the EEG lab) and Dr. (Mrs.) Pandya who developed EMG, evolved into a trans-disciplinary facility under one roof with 22 beds and a separate outpatient clinic for neurology and epilepsy. Together, they strived to provide compassionate and competent care for patients, while maintaining the academic productivity across a spectrum of neurological disorders including infectious conditions (tuberculous meningitis, poliomyelitis, acute hemorrhagic conjunctivitis), congenital abnormalities (atlantoaxial malformations), epilepsy, nutritional disorders of the nervous system, strokes in the young, anterior horn cell disorders and cerebral palsy. They collaborated closely with their colleagues in the Departments of Psychiatry and the School for Physical Therapy at KEM hospital. Surrounded by bright and eager students, they crossed several new frontiers, with little ado and limited resources, attending to patients who travelled long distances filled with hope. He also established the Department of Neurology at Bombay Hospital and regularly attended the Children's Orthopedic Hospital in Bombay. At home and professionally, his wife, Dr. Pilo Bharucha, who established the Department of Pediatrics at KEM Hospital, was an inspiration and a pillar of support.

The Neurological Society of India (NSI) was established by Dr. B. Ramamurthy, Dr. Jacob Chandy, Dr. Baldev Singh and Dr. ST Narasimhan in 1951. Dr. Bharucha joined the Society and attended the first meeting in 1952. Initially, psychiatrists, neuropathologists, and neurochemists, were also members of the NSI. Dr. Grillmeyer, a psychiatrist, who was practicing and had settled in Ceylon after World War II became the President of the NSI. He was an extremely charming and knowledgeable person and had described a disease in Ceylon, that he called "the island disease". This disease had raised

much controversy in that country. During World War II, Dr. Grillmeyer who was an Austrian medical student, was drafted into a tank regiment of the Germany army and sent to the Russian front.

Dr. TK Ghosh from Calcutta was another close friend. They used to meet as examiners and at the annual meetings of the NSI and on the DM examination “circuit”. At the annual meetings of the NSI, measures were taken to improve neurological education and neurological facilities all over India. Dr. Bharucha along with Dr. Noshir Wadia and Dr. Anil Desai worked hard to establish an Epilepsy Association and thus the Indian Epilepsy Association (IEA) was founded in 1971 and Dr. Bharucha was appointed as Secretary. Now, there are 29 chapters spread over most of India with a membership of over 2000. The IEA has a social service commitment to reduce social handicap for patients with epilepsy. For example, the IEA, with support from Dr. KS Mani, Dr G. Arjundas and Dr Vinod Saxena, in 1999, successfully appealed to the Supreme Court to ensure that the provision equating epilepsy with insanity in the Hindu Marriage Act of 1976 was overturned.

In 1985 he undertook one of the earliest Indian rural community based epilepsy detection and control programmes under the auspices of the World Health Organisation using phenobarbitone along with and primary health care workers. He also supported me considerably in carrying out epidemiological surveys in the Parsi community

Dr. Bharucha was (a) (i) Treasurer and Member, Executive Committee (1954-1972), (ii) President (1959), Neurological Society of India, (b) (i) Member, Executive Committee (1961-1965), (ii) Vice President (1969-1973), World Federation of Neurology (c) Vice President, III Asian and Oceanian Congress of Neurology (1971), (d) Member (i) Executive Council, Indian Academy of Medical Sciences (1972-1974) (ii) Editorial Board, Handbook of Clinical

Neurology (1973 onwards) (e) President, XIV World Congress of Neurology, Delhi (1989) (f) Secretary, Indian Epilepsy Association (1971-1991).

Dr. Bharucha was recipient of the Dhanwantari Award in 1991.

As with many specialties, the practice of neurology has evolved over the years, particularly with the advent of imaging. In the pre-CT and pre-MRI era, there was a unique thrill to being a neurologist and holding a medical audience spell bound, simply by taking a history and performing a physical examination with effortless ease. Then, neurologists would discuss at length, the differential diagnosis. Proficient neurologists of this era were a combination of stage actors and detectives with profound background of neurological expertise! Alas! The introduction of the scan has pushed aside all the stage activity. It has been replaced by spectators huddled around viewing a scan picture and a radiologist describing areas of “enhancement”. Nonetheless, for him, neurology remains the most fascinating of all the medical specialties.

In 1947, he married Dr. Pilo Noshervan Kohiyar, a paediatrician with MDs in general medicine, from both Bombay and London, and daughter of a prominent solicitor. Pilo was the founder of the Pediatric Department at the KEM Hospital. They have three sons - Nadir, Manek and Adil. Nadir is a practicing neurologist in Mumbai, Manek Phiroz, a psychiatrist who works in child psychotherapy, and Adil is a gastroenterologist at the Mayo Clinic, Rochester, Minnesota. They have eight lovely granddaughters.

(Dr. Nadir Bharucha, son of Dr. E.P. Bharucha, is Prof. & Head, Department of Neurology, Bombay Hospital Institute of Medical Sciences, Mumbai)





DR. BALDEV SINGH (1904–1998)

President—Neurological Society of India
(1962 and 1971)

by Dr. M Gourie-Devi

*P*rof. Baldev Singh, father of Neurology in India, fondly known as PAPA NEURON, an eminent neurologist and neuroscientist, a humanist, was born on 6 April 1904 and after an illustrious career spanning six decades passed away on 2 February 1998 leaving behind his students, neuroscientists, research scholars and patients grieving the loss. I had the good fortune of being trained under his tutelage for DM Neurology and deem it an honour to pay my humble tribute through this biography.

He belonged to an aristocratic family, born at Zaffarwal Dutta (now in Pakistan) and brought up at a village near Amritsar. Under the influence of his brother he pursued education in science subjects and later completed MBBS from King Edward Medical College at Lahore in 1927 with many gold medals and awards. Dr. Singh then moved to UK where he trained at the London Hospital. He used to tell us many interesting anecdotes of the interaction with Dr. Collier, Kinneer Wilson, Russell Brain and Critchley. He was fascinated by neurosurgery but could not pursue it as he had to return to India because of his wife's illness. After completing MRCP he returned to India and established a lucrative practice in Amritsar and led a luxurious life. Passion to teach students and do research

led him to accept an honorary position at Amritsar Medical College. Development of a model for anemia, attempt to differentiate tuberculosis from Hodgkin's lymphoma by injecting filtrate from emulsified lymph node into rabbit cerebellum were some of his interesting contributions.

Dr. Baldev Singh had a deep interest in structure and function of the brain from his graduate days when he used to dissect the brain. Recording of activity of brain was gaining importance at that time and he tried to construct an equipment but unfortunately was not successful. EEG recording was a novelty and Dr. Singh came to know about the efforts of Dr. Narasimhan at Madras and spent some time learning the technique. In 1950 he contacted Prof. Gibbs at Chicago and spent a year working on EEG and experimental studies on cats, examining the role of thalamus on spike and slow wave.

On his return to India he moved to Christian Medical College, Vellore where Dr. Jacob Chandy had established a comprehensive neurosciences department with neurosurgery, neurology and basic neurosciences. Dr. Singh was asked to set up an EEG laboratory and an experimental laboratory. It was a period of great excitement when surgery for epilepsy was initiated at CMC. In later years he used to mention (when I was training in neurology for DM degree at AIIMS in 1960s) that the years spent at Vellore were memorable for the close interaction with Dr. Chandy and facing challenges in establishing neurology and EEG services. The years in CMC also had a great influence on his life style which went through a major transformation from luxurious to simple living.

The formation of the Neurological Society of India in 1951 was a major initiative of four stalwarts, Dr. Jacob Chandy, Dr. Baldev Singh, Dr. B Ramamurthy and Dr. ST Narasimhan with all

specialties of neurosciences involved in the activities and growth of the Society. Dr. Baldev Singh had the rare distinction of having been the President of Neurological Society of India in 1962 and again in 1971.

The next journey was to Tirath Ram Hospital in New Delhi in 1955 where he was asked to establish neurology services by Col Amir Chand. Dr. Baldev Singh was a very popular neurologist and patients used to throng to the hospital to consult him and it used be said that “there was no patient with neurological disorder in North India who would not have consulted him”. Not satisfied with clinical work alone he collaborated with Prof. BK Anand, Professor of Physiology at Lady Harding Medical College which continued even after Dr. Anand moved to All India Institute of Medical Sciences and they made seminal contributions in the field of consciousness, the effects of yoga and meditation, feeding behavior and sleep.

Dr. Sushila Nayyar, Union Health Minister invited Dr. Baldev Singh to take up the responsibility of establishing neurosciences at AIIMS and consequently he joined as Professor of Neurology in 1965 and the with the appointment of Dr. PN Tandon as Professor of Neurosurgery, the next 3 years saw rapid development, of international standard, of the departments of Neurology and Neurosurgery and other allied sciences. I was lucky to have been enrolled for DM Neurology in the first batch of students and there were excellent clinical and basic neurosciences teaching sessions not just during seminars but also at bedside clinics. After the clinical case presentation and discussion of diagnosis and differential diagnosis, Dr. Baldev Singh always had an interesting question about the underlying pathophysiology which we would find difficult to answer. In his inimitable gentle style he would explain the physiological basis of the disorder. I recall that after very busy

neurology clinics which used to extend up to 7 pm or beyond, both Prof. Baldev Singh and Prof. Tandon would accompany my colleague Dr. BB Sawhney and me to our respective hostels and then only would they go to their homes.

Dr. Singh led a Spartan life eating food, unpalatable to the resident doctors, with relish at the Men's hostel. After retirement in 1968 he was appointed as 'Emeritus Professor of Neurophysiology for life' and he continued to guide PhD candidates and do research in collaboration with Prof. GS Chinna in areas of consciousness, sleep and high altitude physiology till 1991 when he moved to his home in Amritsar. In February 1996, I went to Amritsar from Bangalore to meet him and although he had visual problem and difficulty in walking, he was energetic and eager to know the latest developments in neurology, particularly about the prospects of stem cell therapy in degenerative neurological disorders. I was fascinated to know his insights and views.

He was conferred numerous awards, some of the prestigious ones are Basanti Devi Amir Chand Award by Indian Council of Medical Research, Air Marshal Subroto Mukherjee Award and Hon. Brigadier of Indian Army. The highest award of Padma Bhushan was conferred on him by the President of India in 1971. It was with great humility that he accepted these numerous accolades.

On the scene of Indian Neurology the foot prints of Dr. Baldev Singh will be long lasting for generations of neurologists to emulate his ideas, ideals and dreams.

Acknowledgments

I have included considerable information from biography of Dr. Baldev Singh by Dr. S Pandya, Dr. S Kalyanaraman and

Dr. PN Tandon published in 'Evolution of Neurosciences in India' edited by Dr. K Rajasekharan Nair. I express my grateful thanks to the editor for the permission.

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DR. NOSHIR H WADIA

President—Neurological Society of India
(1963)

*W*hen you are 86 years old, long and distant memories can get blurred but certain events and experiences remain embedded. Yet what I write is drawn from this memory as very little of my life has been recorded in any form including diaries.

Early student days

I was born on 20 January 1925 in Surat into a middle-income, modest, timber merchant family, but was brought up in Bombay. I was determined to be a doctor by age 12. Premedical education was at the St. Xavier's School and College, and the undergraduate and postgraduate medical education was completed seamlessly at the Grant Medical College and Sir Jamsetjee Jejeebhoy (JJ) Hospital through years 1943-1950, with a MD degree in General Medicine.

Neurology residency years 1952–1956

Although the British had left India, enterprising students wanted to write the examination for the Membership of the Royal College of Physicians (MRCP) as it was still the gold standard for a physician and a challenge, which I successfully met in March 1952. I had

always had a special interest in neurology, which was further kindled when I saw masterful demonstrations of neurological cases at the National Hospital for Nervous Diseases, London which I attended before the examination. I therefore applied for a resident appointment at recognized Departments of Neurology but was initially unsuccessful. This was because I was over-qualified for a house physician's position and had not enough experience to be selected for registrarship. Desperately, I compromised for a house physician's position in the Department of Neurosurgery at the Newcastle General Hospital. I was selected but with a caveat that despite my post graduate qualifications I would be at the same level as the other two young house surgeons. I had no problem with that as I was really a starter and I realized that this was a godsend opportunity which would seed my career. The experience gained was immense as I looked after a large number of neurosurgical patients. Nearing the end of my six months term, Mr. George Rowbotham, the senior neurosurgeon advised me to apply for a Registrar's (RMO) position at the Maida Vale Hospital for Nervous Diseases, which Sir Russell Brain attended. I was selected despite considerable competition from British applicants because by then I had nine months of firm grounding in neurology and Mr. Rowbotham's recommendation was strong. At the interview Sir Russell Brain whose book I had read many times asked me "will you go back to India or stay here"? My unhesitating answer was " I will go back". Those were heady days of development of recently independent India and the urge within me was to contribute in whatever way I could to this development.

Maida Vale Hospital 1953–1954

At the Maida Vale I saw classical neurology practiced by master clinicians when CT, MRI and much else were not available. Sir Russell Brain was a big man in every way. He had successfully

published the landmark book “Diseases of the Nervous System” before the age of 40. He was President of the Royal College of Physicians, Editor of BRAIN, Chairman of Royal Commissions, physician to Mr. Winston Churchill and much else. He was a man of few words who could cope with his enormous load of work by being thoroughly organized, punctual and to the point. For example, when we residents wanted to take advice about our careers or other concerns we had to make an appointment through his long serving secretary. And on his next visit to Maida Vale he would smile and say “Miss Marwood says I have to talk to you for 15 minutes”. And in those 15 minutes he would grasp our problem, give advice and promise to help if he could. And he was as good as his word.

A year and quarter sped by and I had to make up my mind whether I should return home as a general physician with interest in neurology because the training so far was not sufficient to become a dedicated neurologist. This was because advice from those high up in the administration of health care and medical education at home was to return, as there was no scope for a neurologist in India. Confused, I sought Sir Russell Brain’s advice. He listened and said he would find out what Dr. Macdonald Critchley’s (another great neurologist) impression was about the scope of neurology in India, after his recent visit to India. And on his next attendance at the Maida Vale advised that I should continue my training as there was every possibility of an opening for a neurologist in India and that too in Bombay. I realized that the 15 minutes he gave me were golden, and how wrong my advisers at home were.

Sir Russell Brain then asked me to apply for the Registrar’s post in his department at the London Hospital and as a tutor at the Medical School. And in his own quiet way got me appointed despite stiff

competition from British applicants, some of whom were graduates from the London Hospital. I came to know much later that I was the first Asian to be appointed as registrar and tutor in the long history of the London Hospital.

The London was a general hospital teaching undergraduates and as such Dr. Russell Brain and his younger colleague Dr. Ronald Henson admitted both neurological, and in small numbers, general medical patients. Besides this they conducted a general OPD and their registrars had to be on call for any medical emergency by rotation. At the London they were physicians with special interest in neurology. And this remained till Sir Russell Brain retired in the 1960s. Surprisingly, dedicated specialization had not arrived at this hospital till then. And as my term as registrar proceeded I realized how thoughtful he had been, because I now had the option to remain a physician with interest in neurology or be a dedicated neurologist depending on the opportunities presented on return. Besides, I also got a different flavor of neurology, as I saw systemic and paediatric neurology.

I can write much about Dr. Ronald Henson but here I am only acknowledging his kindness as he made me comfortable in an old-world medical school where I had got an appointment beyond my wildest dream. As my first year as registrar was coming to an end he hinted that promotion to a senior registrarship depended on research and publications. I was gratified with this advise because it set me a on a life-long course of clinical research and academic pursuit. Later we became friends as he was only 10 years older.

I thought of my patient Nanny Taylor with an acoustic neuroma. She presented with a shuffling gait, pyramidal signs and no papilloedema. She initially presented a diagnostic dilemma which was circuitously sorted out through myelography, carotid

angiography and finally ventriculography. And this led Richard Shepherd and me to publish my first paper entitled “Atypical features in acoustic neuroma” which was good enough to be published in BRAIN. Nanny had none of the classic criteria propounded by Dr. Harvey Cushing in an earlier landmark monograph. And amongst the 80 records of patients operated on for an acoustic neuroma which we analysed 18 (22½%) had none of the features Cushing had stressed.

Returning home

In mid nineteen fifties, I heard that a huge postgraduate Institute of Medical Sciences was being established in New Delhi and recruitment of medical staff was to be done in London by an interviewing committee headed by Sir Laxmanswamy Mudaliar. I applied for a neurology position with full support from Sir Russell Brain knowing that I would have done five years of neurology by the time the Institute opened. I was interviewed but I heard nothing more from the Committee and repeated inquiry failed to get an answer. I was disappointed.

Later I contacted Professor Jacob Chandy at Vellore and his response was warm and spontaneous. He offered me a position, at what level I forget, with a salary of Rs.400 per month, but a little after thought made me realize that I would not fit into a missionary hospital. I then wrote to Dr. Shantilal Mehta, a visionary and my surgical teacher who was then the Honorary Medical Superintendent at the JJ Group of Hospitals. The result was that I was appointed as an Honorary Assistant Neurologist at the JJ and Lecturer in neurology at the Grant Medical College, uniquely without an interview. The caveat was that I should return home within six months. I was somewhat disappointed because there was a post in neuropathology with the renowned neuropathologist, Dr. Dorothy

Russell at the London, for a year which I had to refuse. I have always regretted missing this opportunity, as I would have been a better academic neurologist for knowing neuropathology thoroughly.

JJ Hospital / Grant Medical College

On 3rd January 1957 I joined the JJ. Dr. Menino D'Souza who was in charge of one of the six general medical units had opted for specialization in neurology late in his career and I was his assistant. He was all kindness and encouragement, giving me unadulterated freedom to develop neurology further from where he had initiated.

For a while I missed the facilities I had at the London – a secretary, dictaphone, a dedicated record department, a big neurology library and state-of-the-art equipment. I had none of these. Even the EEG machine was beyond repair and I had to take some interesting cases to the KEM Hospital through the courtesy of my friend Anil Desai, and the senior psychiatrist Dr. N S Vahia. All I had were beds to admit neurology patients, a houseman and a registrar (Bhim Singhal) who had to look after both general medical and neurology patients. To perform a direct stab carotid angiography I had to improvise. It was done on a standard flat x-ray table with one x-ray plate under the patient's head for an AP picture. This done, a plate was held on the side of the patient's head by an attendant for a lateral picture to be whisked off quickly and replaced with another for a second picture. This way we imaged tumours, aneurysms, arteriovenous malformations, cerebral abscesses, subdural haematomas, etc. I specially remember that an unconscious patient had to be carried to the first floor of the OPD building on a late evening where the radiology department was located because the lift not working. During the initial months there was no neurosurgeon at the JJ and some patients were operated on at the KEM Hospital by Ram Ginde who was the only dedicated

neurosurgeon in Bombay. However, some of the easier neurosurgeries like subdural haematoma, cerebral abscess, spinal tumour or laminectomy were performed by our excellent general surgeons with me standing by their side to guide them for localization. However, after a year Gajendra Sinh, fresh from training in Vellore joined me and Jimmy Sidhva a well trained neuroradiologist soon after. We now had a three cornered department and life became less stressful. Gajendra Sinh was a friend from college days and since then we have been close colleagues at various hospitals. It is indeed a fortunate neurologist who has a neurosurgical colleague who is a friend.

On the clinical front I soon realized that the prevalence and frequency of neurological diseases was different from the West. Brain tuberculomas were seen as commonly as gliomas. Patients with tuberculous basal and spinal meningitis, craniovertebral anomalies especially congenital atlantoaxial dislocation, Wilson's disease, malnutrition disorders of the nervous system, etc. which I had not seen abroad were frequently seen. Early on I realized that multiple sclerosis was less frequent amongst Indians, but what was intriguing was that the prevalence was much higher in a small Parsi community of Bombay sharing the same environment. In 1961 I examined a family of autosomal dominant hereditary cerebellar ataxia with very slow eye movements which we later showed were slow velocity saccades. Such a variant had not been reported earlier and within the decade I saw eight more families and reported them in BRAIN. There were other patients with disorders like an indolent focal amyotrophy of an upper limb, painful ophthalmoplegia, non compressive myelopathy who I investigated but not sufficiently in depth to report. I also went down the manganese mines of India and visited ferro-manganese plants as a part of an enquiry committee of the Government of India as manganese poisoning causing Parkinsonism had been reported.

In those early days Dr. Shantilal Mehta, the doyen of surgery and my teacher was the Honorary Medical Superintendent of the JJ Group of Hospitals. He had his own vision of hospital development and medical education and persuaded the Government to construct a large new building to house more units and promote specialization. He was all encouragement. He wanted results and was prepared to help us in getting them.

Initially, Gajendra Sinh and I were allotted six beds within general units. But in a couple of years we had 16 beds, and we also had recognized teaching units for medicine and surgery. And when a brand new building came up around 1960-61 we had our own department with 45 beds each in three large wards on the 4th floor, with extra beds in side rooms for serious and post-operative patients. Simultaneously, a special neuroradiology unit was set up on the 5th floor with state-of-the-art Elema Schonander head table and a 90° tilting table for myelography. Two large new operation theaters were constructed on that floor making it very convenient for the neurosurgeon to do ventriculography.

However, everything was not so plain sailing. We still did not have an EEG machine and had very limited x-ray plates for routine and research use. Further, Dr. Shantilal Mehta resigned and he was replaced by a Medical Superintendent transferred from Baroda (just before the final division into separate states of Maharashtra and Gujarat). And he brought with him the deadening weight of bureaucracy. A request for more x-ray plates was turned down with a reply that there was no milk for patients in Baroda and he was not prepared to spend money needed for patients on x-ray plates, or words to that effect. I was stunned for a while but some months later I saw him again with ambitious plans to expand the neurological services of our department. Initially this was to cover the Government group of hospitals viz, GT, George's and Cama

after more neurologists and neurosurgeons got trained and appointed on the consultant staff. And much later as the department grew a special epilepsy clinic would be established and a paraplegic rehabilitation program instituted. Dr. Shantilal Mehta would have readily approved but this Medical Superintendent sarcastically suggested that I should consult our senior psychiatrist Dr. Marfatia, meaning I was out of touch with reality. I had no option after that but to lie low till he retired (Fig 1).

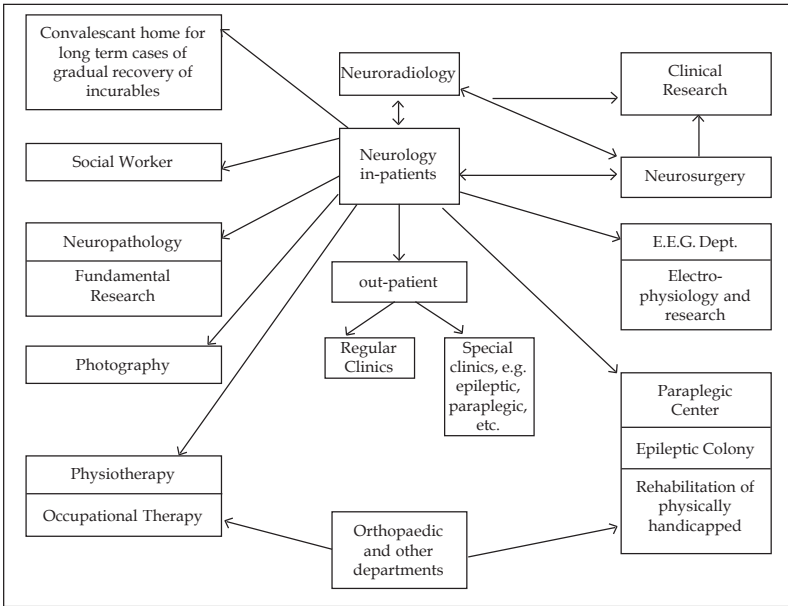


Fig. 1: Plan of a new unit

After the retirement of the MS, Dr. DV Virkar took over and I felt that we should not miss a great opportunity to start a dedicated Department of Neuropathology, which I always wanted to. It so happened that the Indian Council of Medical Research had decided to close its research unit at the Tata Memorial Hospital when Professor VR Khanolkar, its head retired. CGS Iyer and DK Dastur were research officers in the unit, trained neuropathologists, with

whom we were already collaborating for pathological examination of autopsied brains. And I felt that here was a possibility to set up a Neuropathology Department at the JJ campus.

I therefore urged Dr. DV Virkar and Dr. RV Sathe, senior physician to make a proposal to the Government of Maharashtra to take over the Dr. Khanolkar unit lock, stock and barrel and relocate it in the Postgraduate Research laboratory building where ample space was available. Both readily agreed and with the assent of the health minister approached the ICMR Director CG Pandit to get the complete unit with equipment, books, etc transferred to the JJ campus with the Government taking over the funding. The final move came on 15th June 1962. It may have helped that Dr. CG Pandit knew Dr. RV Sathe well and I was a member of a neurology Expert Committee of ICMR. Darab Dastur an old student of our alma mater came along with the unit, but CGS Iyer opted to get posted at an ICMR leprosy unit in Chingleput, Madras. With this move we now had a composite entity of neurological specialities and as a result of this research activity flowered not only within this group but within other departments also.

I remember many happy hours in this department, in the company of Darab Dastur, cutting brains, looking down the microscope and writing papers. Within four years of my joining JJ it was satisfying to be recognized abroad as I was appointed Special Consultant to the National Institutes of Neurological Diseases and Blindness (NINDB), The National Institutes of Health (NIH), U.S., in 1961. Negotiations subsequently resulted in a major collaborative project on nutritional disorders of the nervous system between the National Institutes of Health (NIH), Bethesda, USA and the Neurology and Neuropathology departments of JJ through a large PL480 grant from the US spread over the next five years, beginning mid-sixties. The result was that several important reports were published in the early seventies.

No department can be recognized on the merits of one person and I was fortunate that I could recruit colleagues of my choice to join me. But for this I did not seek promotion to the post of Honorary Neurologist which was overdue till Bhim Singhal returned from UK to be appointed to the vacant position in 1963. His joining was value added to the department because he had a first class career record and training. He soon showed his class as an excellent clinician, teacher and researcher; and it was not long before he became recognized at home and abroad. Later in 1968, Chicot Vas who was first a pool officer joined us as a third colleague. His main interests were epilepsy and EEG and this was an asset to the department. It is interesting that even as a neurologist he set up one of the first departments of CT scanning in the city.

Even then the department did not have an electroencephalograph or electromyograph because the Government would not sanction funds. However there was a machine in the campus which Noshir Antia the head of the Department of Plastic Surgery had obtained through a research grant for study of leprosy nerves. He permitted Shubhada Divekar (now Pandya) initially and Piroja Irani (now Wadia) later to perform electromyography (EMG) on our patients.

This lacunae pushed me to approach charitable organizations, and it was Chicot Vas who managed to get equipments donated by Miserior, an international catholic charity through Caritas India and Cardinal Gracias. They were convinced that these would be used in the service of poor patients. To get even these donated items imported in the permit license Raj required that I wear out the soles of my shoes in the corridors of the relevant Ministries in New Delhi. Unbelievably we had to request Miserior not to send the Schonander EEG because it had a sophisticated recording system requiring regular import of a special ink which was impossible in those days. We finally installed a Van Gogh EEG and Disa EMG.

It was in 1971 that Piroja Irani (now Wadia) was appointed as an Honorary Electrodiagnostician in charge of the section of EEG and EMG in the department of Neurology after completing fellowship at the National Hospital of Nervous Diseases, London. She was also designated as Visiting Officer, electromyography for the NIH project as she participated in it. With this the fifth arm of our neuroscience group was in place. I believe that this was the first separate Clinical Neurophysiology facility in our country with a dedicated specialist in charge. And it was through her involvement and membership of International Clinical Neurophysiology Societies that India was recognized abroad.

Finally, we got an echoencephalograph through the NM Wadia charity, a small department library from the Indian Medical Research Society and a secretary, a research fellow, and furniture through the PL480 research grant. My constant visits to the secretaries in Sachivalaya made sure that no objection was raised to receive these private donations.

But there were failures too. This Research Society of which I was a promoter was prepared to construct an Institute of Neurology where all our facilities would be housed en bloc with much more addition. But for reasons I do not want to mention here the Institute never saw birth. I also failed in my effort to convince the Government that our composite Neuroscience Group should be the hub for training much required budding neurologists and neurosurgeons and other specialists in the absence of degree courses. The aim was to fully train young men and women over two to three years and then open centers similar to ours in the Medical Colleges of Poona (now Pune), Nagpur and Aurangabad to spread neuroscience in our state. To my young and ambitious brain all this seemed reasonable, but perhaps I was out of touch with reality. But now after 40 years have elapsed, I do not see any

composite department in these medical colleges, except a small one in Pune, and no postgraduate degree courses.

In 1973 Sarosh Katrak was appointed as Honorary Assistant Neurologist on our staff having been my house physician and registrar. He had just passed the MD (Medicine) and there was a tacit understanding with me that he would continue his postgraduate study for the DM (Neurology) degree which had just been introduced by the Bombay University. The final examination for this was in 1975 and Sarosh Katrak along with HV Srinivas and MS Bhat, who were all our students passed in the first attempt. After this I arranged a placement for him as Registrar to a well-known department in New Zealand, whose head I knew well. Looking back I am glad that I made this unusual arrangement at the time of his initial appointment knowing his potential, as he has turned out to be an outstanding clinician, a dedicated teacher and a loyal colleague.

Dr. HV Srinivas joined NIMHANS in Bangalore, became a Professor and a much respected teacher and MS Bhat joined the Sree Chitra Tirunal Institute of Medical Sciences & Technology and later emigrated to US. Neeta Shah was appointed on the staff as a junior consultant in the second unit under Bhim Singhal just before I retired in 1982. It was most satisfying that 25 years of service to JJ was appreciated by the government as I was conferred the 'Consultant Neurologist for life, The JJ Group of Hospitals, Grant Medical College', a gazetted special appointment on my retirement. The years spent at the JJ have been some of the most fruitful years of my life.

In 1972 I received a call from Dr. Shantilal Mehta that he was setting up a modern private trust hospital, the Jaslok Hospital and he wanted me to organize another multidisciplinary neurological

department as the Director. Gajendra Sinh joined me as neurosurgeon, Piroja Irani (Wadia) developed a new composite department of Clinical Neurophysiology and Anil Desai was my colleague. Homi Dastur, a neurosurgeon came soon thereafter, Sarosh Katrak in 1978 and Shrinivas Desai as a neuroradiologist in 1984. Once again a friendly composite department was developed with valuable colleagues. This group has grown much since then and today there are specialist clinics in movement disorders, headache, epilepsy, paediatric neurology, pain and sleep medicine. Since 1986, when the National Board of Examination in Neurology was introduced, a series of registrars have successfully passed the examination and settled all over the country and abroad,

It has been a source of great satisfaction to have tutored nearly a hundred neurologists over the years and to publish many papers now nearing 150 mostly about neurological disorders more prevalent in our country. These included two unique diseases. A clinically identified autosomal dominant hereditary ataxia with slow saccadic eye movements mentioned earlier which was later classified as spinocerebellar ataxia 2 (SCA2) through genetic analysis. And a largely adult variety of poliomyelitis following acute haemorrhagic conjunctivitis proved to be caused by a new enterovirus 70 (EV70 disease). The research for these two diseases started at the JJ and was completed at the Jaslok.

As I felt that international attention should be brought to Indian neurology I planned and edited a multi-authored book titled 'Neurological Practice: an Indian Perspective' in 2005 which received laudatory reviews in international neurological journals. This book covers Indian data and diseases not fully covered in classical western textbooks and in some respects are complementary to these.

Besides JJ and Jaslok I have been involved in many other activities related to neurology. I feel strongly that a neurologist's role is not merely to treat patients but to find time to be involved in social activities which promote the welfare of patients and their distressed families. This can be done, for example, by being a member of a Society or conducting camps for the disabled, etc. Towards this I have spent much time as trustee, founder member or member of Indian Societies of Cerebral Palsy, Multiple Sclerosis, Muscular Dystrophy, Parkinson's disease and Motor Neurone Disease.

On the educational front I conducted, for 50 years, weekly neurological demonstrations and ward rounds where students from all colleges were welcome, making the study of neurology attractive. Conducting postgraduate examination at various universities and for the National Board of Examinations was a duty I took seriously to assure that students of good quality became consultants.

My academic activities included membership of research or administrative committees of the Indian Council of Medical Research (ICMR), Department of Science & Technology (DST), National Brain Research Centre (NBRC), National Institute of Mental Health and Neurosciences (NIMHANS) and Indian National Science Academy (INSA). But my major involvement was with Sree Chitra Tirunal Institute of Medical Sciences and Technology almost since its inception. Initially I was on the academic committee. But over the next 25 years I served on the Governing Council and Institute bodies and was finally appointed by Government of India as President/Chancellor of the Institute.

Internationally, I got deeply involved with the World Federation of Neurology (WFN) since its inception in 1957. At first I was invited to be a founder member of the 1st Commission of Tropical

Neurology in 1961 at Buenos Aires, Argentina. Later I served as a Member or Chairman of various committees or research groups till 2009. In 1989 I was elected Vice President and in 2009 I was honoured by being selected as the first recipient of a new Gold Medal for “Services to International Neurology”. As a result of these sustained efforts I have been honoured with awards or conferred Honorary Membership of national and international neurological or scientific organizations. And amongst these I highly prize the honorary membership of the American Neurological Association, the fellowship of the Indian National Science Academy (INSA), which is rarely given to a clinician, and the SS Bhatnagar INSA medal for “excellence in general science”.

Finally, I may mention here a most unusual event in my life, which caused a traumatic interjection in my career, which could have ended tragically. After attending the meeting in Buenos Aires in 1961, I set out to return to India through Europe. Unfortunately, the first stop was in Lisbon just when India invaded Goa to liberate it from Portuguese rule. I was unaware of this far away in South America as communications were then in foreign languages. The result was that I spent two months as a hostage in a dungeon of the notorious prison ‘Caxias’ in Lisbon having been forcibly taken off an international carrier. Those months in prison were a sobering and revealing experience. I did not know how long I would be there. I kept worrying about my family and in truth my department, Bhim Singhal (who I knew was returning to India and his appointment on the staff which I had in mind) and the NIH grant. Government negotiations and much pressure on my behalf through various agencies like the Red Cross, Amnesty International, Papal Nuncio and eminent neurologists in many countries resulted in my release. I should mention here that one of the persons who raised a voice for my release was Dr. Dorothy Russell, the renowned neuropathologist, who later wrote a letter to the BMJ recording this event.

I married, Dr. Piroja Irani (Wadia), late in life and remain very close to her two sons, their wives and four grandchildren.

Today in the winter of my life, I treasure very warm and happy memories and look back on a long and satisfying neurological journey, thanks to so many who have made it possible.

I am currently the Emeritus Director of the Department of Neurology, Jaslok Hospital and Research Centre, Mumbai.





DR. ANIL D DESAI (1924–2006)

President—Neurological Society of India
(1967)

by Dr. Sunil Pandya

Dr. Anil Desai was born on 27 June 1924 into the family of a businessman and he spent his childhood with the royal family of Orchha and acquired a nobility of spirit that prevailed in his dealings with others till his end.

He studied at the Seth GS Medical College and its affiliated KEM Hospital in Bombay from 1941 to 1946. After serving as house physician in his *alma mater*, he proceeded to Britain where he qualified for MRCP from Edinburgh in 1951. (This college honored him with a Fellowship in 1971.)

He worked under the guidance of Dr. Norman Whalley, neurosurgeon at Morrision Hospital, Swansea and was asked to pursue a career in neurosurgery but he preferred neurology and to that end he worked with Dr. Natrass and Dr. (later Lord) John Walton at Newcastle-upon-Tyne. He also worked with Dr. Henry Miller at the Royal Victoria Infirmary at Newcastle. He planned further study at the National Hospital, Queen Square with Drs. Carmichael, Walshe, Dennis Williams and Macdonald Critchley but had to return to Bombay in 1952 at his father's request.

He was appointed Research Assistant at his *alma mater* in 1952 . He had already developed an interest in epilepsy and attended to patients attending Dr. NS Vahia's clinic at the KEM Hospital. Drs. Vahia and Desai set up an EEG laboratory. He continued in this capacity till he joined Dr. Homi M. Dastur as Assistant Honorary Neurologist in the Department of Neurosurgery in 1958. He rose progressively to the post of Professor of Neurology.

His help in developing the fledgling Department of Neurosurgery complemented the efforts of Dr. Homi Dastur. Whilst Dr. Dastur attended to tests such as ventriculography, angiography and pneumoencephalography and then continued with surgery, Dr. Desai attended to patients in the daily outpatient clinic, did the ward rounds and wrote clinical notes. In a couple of years the department developed a formidable reputation. Drs. Dastur and Desai set up a system of medical case records that remains unparalleled in India. Using this simple, unsophisticated system that required nothing more than pen, paper and effort, we can, even today, pull out the case notes, x-ray films, EEG records, pathology reports and follow-up notes of any patient from 1957 onwards given just the first name of the patient and the year in which he was seen at the neurosurgery clinic. The time taken to get these records is seldom more than five minutes.

Drs. Dastur and Desai developed a departmental library that remains the envy of all visiting neuroscientists. Starting with a handful of texts, it now has volumes on the history of neurosciences; numerous reference volumes on neurology, neurosurgery, neuroradiology, neuropathology; the entire series of *Neurology India*, *Clinical Neurosurgery* and other journals. Dr. Desai's journals - ranging from the *British Medical Journal* and *Journal of Neurology, Neurosurgery and Psychiatry* to *Epilepsia*, *Muscular Dystrophy Abstracts* and *Journal of the Royal College of*

Physicians of Edinburgh – and his texts, including a rare edition of Thomas Willis’ opus magnum reissued by McGill University were automatically added to this collection and open to use by all staff members. This was one of the first departments in India to possess the Schaltenbrand *Atlas* for stereotaxic surgery. It has inherited Dr. RG Ginde’s library including a complete set of reprints of papers published from the Montreal Neurological Institute whilst Drs. Wilder Penfield and William Cone served there.

In 1962, at Dr. Dastur’s urging, Dr. Desai traveled to Dr. Narabayashi’s clinic in Japan to learn stereotaxic surgery for the treatment of patients with disorders of the basal ganglia. Together with Dr. Dastur he started treating such patients using a frame developed by himself based on the Narabayashi model. He struggled to find the right insulation for the stereotaxy needles and ensured that the department had a steady supply of these manufactured locally.

Of the many lessons he taught me, one stands out in memory for the simple reason that no one else has ever referred to this topic in all these years. It pertained to a clinical observation he and Dr. Homi Dastur had made in the 1960s. They were to perform stereotaxic thalamotomy on a 35-year old woman with Parkinson’s disease with predominant rigidity. She was being treated with phenobarbitone in the dose of 30 mg three times daily. Within a few days she experienced pain in the shoulder and later in other limb joints. There was nothing to suggest rheumatoid or rheumatic arthritis. Salicylates did not help. He then recalled reading a leading article in the *British Medical Journal* (15 April 1967, page 130) describing such pain consequent to treatment with phenobarbitone. This drug was promptly discontinued with rapid disappearance of her joint symptoms. From that date onwards whenever we had a patient with frozen shoulder that started after phenobarbitone

was prescribed, he counseled stoppage of the drug with gratifying relief.

Drs. Dastur and Desai invited Dr. Ilona Bubelis from New York to help develop neuropathology at the KEM Hospital. Dr. Bubelis found an enthusiastic trainee in Dr. DH Deshpande who continued to develop the department after Dr. Bubelis returned to America. Later Dr. Desai continued this work as Professor of Neuropathology.

In 1964, stimulated by Dr. John Walton's work, he started research on disorders of the muscles. He returned to Newcastle-upon-Tyne in 1968 to learn histochemical techniques, which he then set up at the KEM Hospital together with Dr. Deshpande. Dr. Desai was one of the first workers to suggest central nervous system involvement in what was hitherto considered 'primary muscle disease' – a stand vindicated later by observers elsewhere in the world.

In 1969 he obtained a PL480 grant from the Government of the United States for the study of patients with epilepsy and setup a special clinic for such patients at the KEM Hospital.

His publications cover a wide spectrum. Especially noteworthy are those on muscular dystrophies, epilepsy and sleep studies.

The Neurological Society of India honored him by electing him President in 1967. He served the Society as Secretary from 1956-1964 and as Editor of *Neurology India* from 1965-1978. Drs. Desai and Dastur spent hours in the library each day looking up every reference in each paper to be published in the journal to ensure that it was relevant and accurate. Several papers were virtually rewritten. During Dr. Desai's term as Editor, the journal was included in *Index Medicus*.

Dr. Desai had an abiding interest in epilepsy. His Presidential Oration to the Neurological Society of India was on psychomotor epilepsy and predictably included not only neurological wisdom but also references to Ramakrishna Paramahansa, Van Gogh and Fyodor Dostoevsky. Dr. Desai was appointed Secretary of the section on epilepsy in the Neurological Society of India and between 1968-1969 he helped form the Indian Epilepsy Association. This organisation, without disturbing the constitution of its parent society, focused on the needs of patients with epilepsy and their families. There were nine members in the first Governing Council: Dr. Baldev Singh, Dr. B Ramamurthy, Dr. TK Ghosh, Dr. EP Bharucha, Dr. Anil D. Desai, Dr. NH Wadia, Dr. KV Mathai, Dr. KS Mani and Dr. Roshan H. Dastur. These members got the Association registered in 1970. Its development to the present state and especially the recent international honour given to Dr. Pravina U. Shah would have pleased him immensely.

In 1974 the Society appointed him Dr. Jacob Chandy Orator. He spoke on Duchenne dystrophy.

Widely traveled, fond of Indian classical music and blessed with a wide circle of friends, he had his share of joy, which he greatly relished. He often teased other neurophysicians by talking of his deep affection for neurosurgeons and their families. He was especially fond of Dr. Homi Dastur – with whom he spent decades building an enduring department – Dr. B. Ramamurthy and Dr. Prakash Tandon. He was completely at home with them and in the midst of their families.

He also bore the mark of pain when his only child suddenly took ill and passed away on the eve of her wedding. Myocardial infarction in 1966 and later episodes of cardiac ischemia did not diminish his endeavors. If anything, he was even more enthusiastic, setting up the Muscular Dystrophy Foundation, trying to develop

a muscle pathology laboratory at the Jaslok Hospital and enthusing younger colleagues to continue where he had left off.

Dr. Homi Dastur has often expressed his admiration for the manner in which Dr. Desai put in 12-14 hours of work over several decades despite myocardial infarction and diabetes mellitus needing insulin injections. It is salutary to recall that there were no facilities, then, for monitoring blood sugar by instruments such as the modern glucometers. He had learnt to detect early hypoglycemia from its symptoms and correct it without any interruption in work. Certainly, he never let his illnesses serve as dampeners to his efforts in the department at KEM Hospital or elsewhere. At times Dr. Dastur would experience a sense of alarm at the manner in which Dr. Desai coped under trying circumstances. Dr. Desai would reassure him and continue with the task at hand with equanimity.

On retirement from the KEM Hospital in 1982 he was appointed Emeritus Professor.

He was easily approachable. With his cheer and encouragement, he lightened the atmosphere around him. If you happened to drop in on him as he had his lunch, you could not get away without sampling some of his food. Not surprisingly, his postgraduates worshipped him and to this date speak wistfully and admiringly of his influence on their careers.

He joined Jaslok Hospital and Research Centre in 1973 and continued on its staff till his death.

Dr. Anil Desai died on 30 August 2006 as he had desired - with his boots on and still in harness. After a pleasant lunch with friends, as he walked towards his car he suddenly passed away.

Dr. Desai leaves behind his widow, Dr. Usha Desai, with whom he spent many happy and memorable years.

Acknowledgements

I am grateful to Drs. Usha Desai and Manju Tanna for providing the photograph of Dr. Anil Desai. I thank Dr. Homi Dastur for sharing his memories of Dr. Anil Desai with me and for improving the obituary note I had prepared.

Reference

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(Dr. Sunil Pandya is Consultant Neurosurgeon at Jaslok Hospital and Research Centre, Mumbai).





DR. KS MANI (1928–2001)

President—Neurological Society of India
(1972)

by Dr. VS Saxena

I first met Dr. KS Mani on 27 October 1977 in NIMHANS. Though the time fixed for the meeting was 5 pm, I reached fifteen minutes late. By then he had already locked his office and was pacing up and down the corridor. Though the meeting may have started with recrimination, but the agenda was completed. This incident laid down the ground rules of how he expected his time and territory to be respected.

Born on 18 October 1928 in Madurai, very few know his real name Kalyanasundaram Subramaniam. For most he was KS Mani, KSM for those who worked with him and Mani for closer friends. His father was a renowned physician who worked in Madras Medical College and General Hospital. He was known to be a researcher, strict disciplinarian and above all a nationalist. He died at a young age of 48 but on his sick bed had the distinction of a visit by Mahatma Gandhi himself. KSM's personality seemed to be patterned on his father's in devotion to work, money probity and fairness in dealings.

Dr. Mani entered Madras Medical College in 1947 as India attained freedom. It was a poignant reminder to the son of a father who

only lived that dream. He completed his MD Medicine in 1956. His notable friends from that time were Dr. G Arjundas, his classmate and Dr. K Jagannathan. He had stints as Assistant Professor in Medicine and Assistant Physician in General Hospital, Madras. Dr. B Ramamurthy who was his father's student got him interested in neurology.

He joined All India Institute of Mental Health, Bangalore then only a mental hospital in 1957. He, however, learnt clinical neurology and EEG from Dr. Leiberman from UK, who was the neuropsychiatrist appointed by WHO. Later in 1960 he got an opportunity to travel to the UK under Colombo Plan. He remained in the UK for 2 years learning clinical neurology at Queen Square and Maida Vale Hospital. While there he also developed deep interest in neurophysiology, neuroradiology and neuropathology. His return to AIIMH, Bangalore in April 1962 brought about important changes in his professional life. He along with Dr. RM Varma, the then Head of neurosurgery started working towards better services for patients. They planned and got out-patient and in-patient facilities, operation theatres and departments of neuroradiology and allied sciences. Each venture was a daunting challenge but both together along with yet another stalwart Prof GNN Reddy weathered many a storm.

They laid down the groundwork for what was later to become the National Institute of Mental Health and Neurosciences in 1974. The close understanding he had with Dr. Varma was the subject of special exhortation by Prof. Denis Williams who on his visit to NIMHANS said "under no circumstances this partnership should break". They were together till 1978 after which they started their own consultations. But their friendship transcended beyond two decades further.

During this time Dr. Mani identified a new entity of ‘hot water epilepsy’, which was a clinical observational masterpiece, as also his work on tropical spastic paraplegia and experimental neurolethyrism. His descriptions of hot water epilepsy and South India paraplegia brought out both positive and negative reactions from some fellow professionals. But his student Dr. P Satishchandra produced clinching evidence, for the worth of his mentor’s work, by successfully demonstrating an experimental model and the genetic basis of hot water epilepsy. His work on natural history of untreated epilepsy is seminal and brought praise from many quarters. He has over 100 publications all done with meticulous care and his usual flair for accuracy. Dr. M Gourie-Devi and Dr. P Satishchandra, from NIMHANS, recall how he inculcated in all the discipline towards the task at hand with punctiliousness in record-keeping.

During his time in NIMHANS he collaborated on a an extensive project with PL-480 funds on epidemiology of epilepsy under the direction of ICMR. This was a hospital referral based study to compare causes, classification, socio-economic, cultural and emotional factors and response to treatment. The group worked well and very hard to bring out elaborate results which were a landmark at that time.

His deep interest in epilepsy helped him co-found the India Epilepsy Association in 1971. He also founded the Bangalore Chapter of IEA the same year. He did not circumscribe himself to any boundaries as his passionate advocacy of all causes related to epilepsy made us all sit up and listen. His ideas and concerns led to so many positive ventures for which IEA is grateful to him.

He was elected the president of 18th International Congress of Epilepsy held in 1989 in New Delhi, the first such event in a

developing country. Organisationally a resounding success, scientifically a new experience then but financially, its impact lasts even today. He was appointed the president of IEA-18th IEC Trust from 1992–1998 an assignment he did justly and with distinction. He very ably conducted the affairs of IEA first as the secretary-general (1991-1996) and then as president (1996-1998). Some of his observations and policies stand us in good stead even today.

He spoke about rural persons with epilepsy at many fora. He could never tear away from his abiding interest in such people who could not even reach hospitals. He was rather pained that a patient from a village was unaware as to what his problem was and how long he needed treatment; he was confused and ill-equipped barring the 30 tablets handed out to him to see his condition through. Remedy became worse than the ailment, as some permanently lost faith in the profession.

He tried hard to rectify faults in the medical teaching of epilepsy. Borne out of this altruistic desire was his bleeding heart on show. I have reasons to believe that all this did not make him very popular with many professional colleagues but by then he had moved on. His mettle needed nobody's knowledge of metallurgy.

Empathising with the dispossessed he bemoaned the heavy skew of all medical facilities of the country to the 20% well-to-do city dwellers. He answered that in his own way through the study in Yelandur. The study was a classic in simplicity and delivery. The planning process however was extensive as the protocol and methodology incorporated commentary from multiple disciplines in epidemiology. It was an apt lesson in carrying out epidemiological work in a non-institutional environment.

Yelandur Project will remain a living embodiment of what he preached and practised. All those connected with the project should hold their heads high because of its stupenous impact. He took the help of Bangalore Chapter of IEA and an NGO Karuna Trust and their staff. The project started in April 1990 and covered 40 villages in the plains and 11 villages in the hilly and tribal areas of Mysore, all situated about 4-5 hours travel from Bangalore. He along with Dr. Geeta Rangan and Dr. HV Srinivas made monthly visits carrying free medicines, rations and fuel. Three year follow-up of 203 patients showed that 40% were seizure-free for over 3 years, 9% for 2-3 years and 32% for under 2 years. Only 15% were unchanged and 4% worse when phenobarbitone was used at 120mg daily or less or phenytoin at 300 mg adult dose. The results were excellent by any criteria. The Lancet publication on this subject is still widely cited.

And to recall that the politics behind had nearly pulled IEA asunder. The pyrrhic victory was that after IEA pulled out, the medical and paramedical workers of the Karuna Trust ensured regular follow-up and treatment. Karuna Trust even followed this good work with similar efforts in leprosy, tuberculosis and mental conditions.

His commitment to social causes became a theme for many others to follow. He spoke to school children and teachers and arranged outdoor camps for them. He cajoled bureaucrats and policy makers, appealed to their reason and sense of service to change driving laws, provide inclusive insurance, reduce sales tax, import duty on bulk drugs to benefit this patient class. Lecturing to lay public and the *piece de resistance* of his demonstration of all types of fits was education using the common denominator of humour, Chaplinesque at times and self afflicting at others (once one of these well practised falls went awry with the ground being harder than usual and he was laid up in bed with a sore back for a few days).

I vividly recall one of the social seminars in 1986 where Justice Santosh Hegde was the Chief Guest who pointed out that some of our professional brethren sitting in the Central Health Ministry had recommended that epilepsy be bracketed with insanity for those seeking divorce. It took full 13 years and back-breaking slog and travails to have that law reversed in the statute books. Once again he led from the front aiding efforts of others like Dr Eddie Bharucha, Dr. B Ramamurthy, Dr. G Arjundas and others.

He entered consulting practice fully committed to serving patients with little regard for the financial crunch that he would face. Ably aided by his neurologist wife Dr. Geeta Rangan, they wrote detailed clinical history, conducted full clinical examination never running less than an hour, did EEG on site and provided detailed instructions on medication and life style. Before enlisting patients he used to give them a catechism course on the disease charging them five rupees for the booklet which cost him fifteen. Despite that he maintained a record of these Q&A books printed and sold with the names of the patients. As meticulously he accounted for free drug samples. I did show impatience with him on such fetish but in heart of hearts I knew that he would not be him, if he did anything less! If anything he would do it even more obsessively. He had full clinical data from his 10,000 patients in 20 years all duly filled and filed for one to carry out any analysis. He never left any details unfilled as he fervently believed that the buck started and stopped with him.

A few of us who had the pleasure and indeed honour of working hand in hand with him would recall his utter commitment to causes often neglected by most; all carried out with almost a missionary zeal, uprightness and financial rectitude of the first order. How he kept the account books of IEA and how abstemiously he resorted to official funds, invariably using his own funds for IEA activities,

doing a great deal of work personally which included secretarial, book keeping, bank errands and visits within and outside the city just to be able to talk about epilepsy.

He even donated all his prize money from local societies and IBE / ILAE to IEA. IEA did not fail him; the Bangalore Chapter of IEA donated an amount to start the KS Mani Memorial Patient Session during the annual conferences of IEA, the most apt way to perpetuate his memory. Bangalore Neurological Society too instituted KS Mani Oration which is conducted every alternate year. Dr. HV Srinivas his alter ego during their work in the Chapter, bearing the illustrious torch, blossomed into a leader in his own right.

KSM was rigid of opinions, not always though. For the sake of the Association at times he suffered fools gladly (I am a case in point) as long as they served IEA in some manner.

As a person, he had a dry and self-deprecating sense of humour calling himself “Tom-thumb” and once refusing to occupy a big arm chair saying what a waste of space it was. His humour lightened the air particularly in lay groups. He had a sharp tongue, which we took lightly but a sharper mind which we took seriously to our own advantage.

Some aspects perhaps lesser known were his love of nature and animals, art and classics. He loved PG Woodehouse and often quoted literature. He was a singer and had training in music. He had a loud booming voice and hardly needed PA equipment in meetings. He was an actor *par excellence* in mimicry even as a student often within the class rooms and at the expense of his teachers. But he never got caught like the fabled Scarlet Pimpernel. He was just as good academically, he cleared all examinations in first attempt and with

merit. He went into sports equally zealously. He played hard at tennis, often refusing to yield ground. An astute observer of human behaviour, he could enact all types of fits. He had a wonderful way of dealing with children of friends by behaving their age and acting the fool complete with facial and body contortions.

His marriage to Geeta can be considered a triumph of faith over experience. She complemented him appropriately in the clinic. The domestic felicity was much apparent, mostly with one carrying the onus 'manfully'. Many will recall some delightful evenings at Geetalaya their home.

In his life big awards came in plenty. IBE and ILAE gave him Ambassador for Epilepsy in 1975. IBE and ILAE recognised him for his signal services to epilepsy community by Social Accomplishment Award in 1997. These international bodies did not wish to fail themselves as they conferred the Life Time Achievement Award to him on 26 March 2001. This was an ironical happening in its finality as little did they know that he would not be able to accept that in person. He died just two days later. Of course, he read the email before going to the hospital and even had the thought of forwarding it to me. His wife Geeta too died a decade later but the interregnum did help us to keep alive the association while reminiscing many a good work done. I imagine, if he were to write a final message it would be:

“In the chain of my life, there were so many links, all of which tended towards bringing me to the fulfillment of my destiny.”

(Dr. VS Saxena is President IEA-18th IEC trust)

Photo courtesy-Dr. P Satishchandra



A tribute to Dr. KS Mani

by Dr. HV Srinivas

*I*t was my good fortune that KSM, that is how we fondly used to address him, persuaded me to leave Gulbarga and join NIMHANS. He was my mentor, guide, and in later years a friend also. He was a very strict disciplinarian and at times short tempered but very affectionate and had a strong personality belying his diminutive stature and frail physical frame!

At the time of my joining NIMHANS, I still remember that he ended his brief introduction saying that he did not like “calendar gazing”. On seeing my puzzled look, he explained that he did not like the trend of government employees looking at the holiday list and applying for leave so that they can have a long week end or an extended holiday. Of course for him there was no holiday at all!

When he was in-charge Director of NIMHANS, in addition to being the Head of Neurology Department, he would strongly recommend, as Head of the Department, for purchase of some equipment but once he sat in the Director’s chair he would reject his own application giving priority to other Departments!

As a practicing neurologist he was meticulous in record keeping and would write down the case sheets himself. He restricted his practice to patients with epilepsy and spent considerable time in history taking, clinical examination and writing the case record. Patients used to feel that too much time was being spent for history taking and examination; while the trend was that doctors did not have time to listen to the patients' complaints. He not only talked about medical aspects but used to spend considerable time emphasizing on the various social aspects of epilepsy. That was his passion. If the patients were irregular for follow-up he used to feign anger and shout at them only to pacify and talk to them in a very friendly manner, before they left the room.

He was ably assisted by his wife Dr. Geeta Rangan a neurologist who had a knack of playing with the EEG machine, so much so that she could knock it down and reassemble it!. She was indeed very good at attending to the finer details of the machine and EEG records.

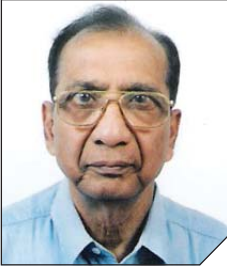
Dr. Mani's special interest was social aspects of epilepsy, patient and public education. He was a master in demonstrating various types of seizures on stage so much so that we used to tell him that, if at all he gets a genuine seizure, it may be difficult for us to diagnose it ! My association with him strengthened further when we jointly undertook the Yelandur Epilepsy Project for over five years. The trips to Yelandur was initially once a month, at our own cost. He did not believe in asking for funds. The antiepileptic drugs phenobarbitone and phenytoin were obtained gratis from pharma companies and distributed free, every month, practically at the doorsteps of the patients through the primary health care workers who were also distributing anti tubercular and anti malarial drugs. He was meticulous to the point of obsession, with regards punctuality, record maintenance and analysis of data. His penchant

for micro management is exemplified by the fact that he used to affix postal stamp on all the Newsletters of the IEA-Bangalore Chapter, and then take it personally to the post office for bulk posting! When he used to pull me up saying that I should spend more time in the field of epilepsy, I argued that I am a general neurologist with special interest in epilepsy and not an epileptologist like him, who breaths epilepsy, eats epilepsy and lives epilepsy!

He is the only Indian bestowed with all the three prestigious awards by International Bureau for Epilepsy and International League Against Epilepsy (IBE-ILAE), the Ambassador for Epilepsy award, Social Accomplishment award and Lifetime Achievement award. Unfortunately he did not live to receive the last award. His sudden demise after a brief illness has left a void in the field of epilepsy.

(Dr. HV Srinivas is a Consultant Neurologist at Sagar Hospital and Agadi Hospital, Bangalore)





DR. G ARJUNDAS

President—Neurological Society of India
(1976)

I was born into a business family on 7 September 1929 as the 6th child. My parents lived in Madras and had a large confectionery manufacturing unit which competed fairly successfully with British Parry Sweets. Later my parents extended the business to Rangoon, in Burma but we stayed back for schooling.

I studied in an unknown Marwari school. I learnt the Marwari tongue-twister prayer which I used with great success in treating dysphasia and dysarthria in Marwari community. It is amazing how the speech and language resume with recital of this prayer. It is excellent in improving dysarthria in strokes, in Parkinson's and other conditions.

My elder brother, three cousins and I used to visit my parents in Rangoon during summer vacations, taking a 4 day boat ride in the deck class. I remember the experience very well. I think those travels in the rough Bay of Bengal improved my vestibular system well to endure longer ship journeys later. Finally I shifted residence to be with my parents and studied in one the best schools, Bet boys High school.

Excellent education was surpassed only by excellent life with parents. Rangoon was a beautiful city. We lived in the 31st street in a block of 24 flats which were interconnected by doors which were opened during festivals. The rest of tenants were vegetarian Gujaratis. This is where I picked up Gujarati. It was the best part of my life cut short by Japanese invasion during second world war. My aunt I and left in the last ship to Madras 3 days before Rangoon city was bombed. This was three months before final iii form exam. We finally reached our native place Hyderabad Sind after a four day travel from Chennai with change of trains at Bombay and Ahmedabad. I still remember those train journeys.

In Hyderabad Sind I joined a Vidyalaya as a Burmese refugee student where the medium of instruction was Sindhi which I did not know to read or write. I had to appear for iv form exam by March to prevent loss of a year! The headmaster was very accommodative and allowed me to answer questions in Hindi.

I remember the time I had a brush with death when I developed typhoid. There was no treatment then and mortality was high. This was partly because diet was restricted to prevent perforation! I was treated by Dr. Malkani. My aunt nursed me with great love and I survived. After 4 weeks I was so weak that when I walked a strong breeze could push me off.

I passed the iv form and joined the same school I had done my primary education. The school was now called Jain High School. The classes were held in a Jain temple building. I passed SSLC, with high marks in March 1945 and got a merit seat in Layola College, Madras.

After completing my intermediate course though I wanted to be an engineer, I got a medical seat. There were no pressures,

recommendations; a yellow postcard just arrived for admission into Madras Medical College; it was so simple! It was a momentous day in June 1947, with the great independence movement and quit Indian slogans at their peak, I walked up the ornate winding steps to the biology department to introduce myself, to a very anglicized Principal. The five and half year course was most eventful in my life.

I got married on 24 December 1959 after my pharmacology exam, just before I went as a member of my college cricket team for intercollegiate matches to Ceylon, a very beautiful country at that time.

My mother developed severe right hemiplegia with total aphasia in August 1951. She was unconscious for 6 weeks with fever. I guess it was an intracranial hemorrhage due to hypertension. She survived with the constant care of Dr Viswanathan, a physician who later became a famous Diabetologist, though she never recovered any function but could recognise family members and smile.

Five years of medical college flew by with several medals along the line. I passed MBBS in December 1950 standing first in the University in anatomy, physiology and biochemistry!

Though I was offered a paid house surgeonsip but I chose to do the unpaid one. While waiting for MD selection in December 1953 I worked as tutor in anatomy department for 3 months and earned the first income of Rs 96 as stipend per month. I gave my first pay proudly to my mother in 1954! She was aphasic but she had tears of joy and that moment was my happiest one.

In 1954 I joined MD in General Medicine, a two year course at that time, under Prof. KS Sanjivi. I owe him a lot for what I am today. During the course I worked as an Honorary Assistant Physician in the same unit. This helped me pay my MD fees. I became an Assistant Professor in 1955 when I was 26 years old.

In 1955 there was an offer to go as a ship surgeon to Rangoon which I accepted. It took me 12 days from Chennai to Rangoon to Mumbai and back. It was wonderful to return to the place of childhood days. My wife's family were still there doing business and the city was as beautiful as ever. Sadly when I went back many years later it had severely deteriorated.

Of the 53 students who appeared for MD in General Medicine in April 1956, 10 were first timers and the rest were repeaters! The results were held up for a month because Sir AL Mudaliar, the Vice Chancellor was busy with WHO meeting and results could not be released without his signature. Finally the results came, three of us -- Dr. KS Mani, Dr. K Govindas and myself -- had passed; all first timers. The careers of all three is well recorded in the history of time.

After MBBS I wanted to go abroad to study MRCP but stayed back to do MD because of my mother's health; but after MD there was an intense desire to study abroad and specialize. Dr. Ramamurthy suggested I take up neurology.

My training period for general medicine was peculiarly biased in favour of cardiology. Discovery of cardiac catheterization and of measuring pressures in left ventricle and pulmonary artery by Paul Wood in his book on cardiology and excellent presentations in the book by Dudley White enamored me.

In 1953 a WHO team headed by Dr. Husfelt, a cardiac surgeon, introduced cardiac surgery in our hospital. The team included Dr. Alexander Fleming who had just discovered penicillin. Towards the end of the second year of MD we were taught neurology Dr B Ramamurthy (BRM). It was the turning point in my choice of specialization.

That is how I reached the National Institute of Neurology, Queen Square, London in October 1956 with a letter of introduction to Dr. McDonald Critchley from Professor Sanjivi. He received me with courtesy and invited me to join in the case presentations and discussions of his unit.

I still remember the discussion on a person who had touched a live wire and had convulsions. Conclusion was simple but ardent and intrusive questioning revealed that he was a case of focal fits with shock-like sensations in left hand followed by generalised fits (this was before classifications like SPS becoming generalised) and that the plug point was *not live* as discovered by an electrician! Dr. Critchley was absolutely clinical and very logical. I am sure all have read his book on parietal lobe!

It was a wonderful time of logical knowledge and intensive training after the extensive training in clinical medicine at Madras Medical College. I did a double job of training in neurology and also finishing, in first shot, my MRCP exam with neurology as specialty from Edinburgh.

I joined the training program at the institute and went through a very harsh winter. As I was short of money I stayed at 1, Guilford street run by the Indian embassy, for 10 shillings a week. The rent included hot water for shower, (unknown in those days in UK; where only bath tubs were used), breakfast and dinner; on Sundays lunch

was also served. For heating we had a small heater for which we had to pay. This was when I realized the value of hot water bottles used since Victorian age. Since the hospital was centrally heated I took permission to study in the library until late in the evenings which helped me save money on heating and also prepare for MRCP!

I returned home in 1957 and rejoined as Honorary Assistant Physician in Prof Ratnavel Subramaniam's (RS), doyen among physicians with special interest in neurology, unit. The first thing that impressed me was his hearty laughter which came easily and often and could be heard throughout the hospital. He was a physician par excellence with tremendous interest and innovation in neurology! He was the first to give PAS in TBM via IV. He taught me how to do a cervical myelogram with the very sticky myodil, with the constant fear that one may pith the cord! I was permitted to do satellite ganglion blocks for acute strokes. I must have done hundreds of them. He was first person to suggest and give hyaluronidase injection for carpal tunnel syndrome. He suggested that intrathecal hyaluronidase be given for chronic long segment, medically non-responsive chronic arachnoiditis with progressive paraplegia. He had the super capacity to see TB in CSF smears in TBM.

I wrote a paper on treatment of TBM with MTC classification and differences between steroid and a no-steroid regime with stripping and PAS treatment which was published in the international journal 'Tubercle' in 1961. His favorite subject was cirrhosis and that helped me write a paper on hepato cerebral disorders. He was the one who, in 1957, encouraged me to run a weekly neurology clinic—the first in Tamil Nadu. This was welcomed by Prof Ramamurthy and helped me join his neurosurgery unit. I was given 4 beds for admitting neurology cases out of the meager 18 beds allotted to him in the unit under Prof Sangam Lal.

Encouraged by Prof. RS and Prof. BRM, I started the first neurology outpatient in 1957 in Tamil Nadu. It was a great day in my life. Dr. Baldev Singh and Dr. Janaki in CMC, Vellore, Dr. Eddie Barucha and possibly, Dr. Anil Desai in Mumbai and Dr. TK Ghosh in Kolkata were the few neurologists in India at that time. From June 1957 I started holding OPDs every Saturday afternoon. Soon after, I was invited to join the team of Prof. Ramamurthy, Dr. ST Narasimhan and Dr. V Balasubramanian in the Department of Neurosurgery, under Prof. Sangam Lal. The neurology and neurosurgical outpatients ran together on lines of Montreal Neurological Institute, where Prof. BRM had trained. It was a new concept but in a large country like ours, with large numbers seeking help in Govt Hospitals, the quick disposal of cases, with across the table immediate consultations saved time and helped patients.

I had been an honorary Assistant Physician since 1955 and it was a struggle to set up neurological practice; giants like Prof. BRM and senior physicians were sought after. When I was thinking of packing up I got appointed as Assistant Neurologist in a hospital in Duke University, USA.

Two important events changed the course of my life. First was when I met my mentor in medicine, Prof. Sanjivi and told him about going away to USA as I was finding it difficult to earn a good living to support my family without depending on my father. He looked at me and said in his usual soft voice 'I wish you did not go. To help you I will not see a single neurological case from today and will refer all of them to you'. I could not believe what he said. He was a top consultant and had large practice and was very famous. He kept his word and never saw a neurological case after that and referred all cases to me. I quickly became known as a competent neurologist. There are not many teachers who would

part with a big slice of their practice to their students!! I am grateful and indebted to him.

The second event that changed my life was when I requested for a change of title from Honorary Assistant Physician to Honorary Assistant Neurologist. I was advised by my second mentor, a very fine physician and a very able administrator, to apply for Govt Civil Assistant job. To my utter surprise I was offered a post in psychiatry! Obviously the Govt was not aware that neurology was different from psychiatry! I declined the job.

A few days later, I attended the condolence meeting of Dr. Guruswamy Mudaliar. There I met Prof Thayumanaswamy a General Surgeon, who advised me not to go to USA and asked whether I was willing to take care of medical services for an American oil company. I agreed and had to work for two hours a day. They allowed me to teach at MMC and I could still go for my tennis at 4.30 pm!

There was no EEG machine in the hospital. In 1957, Dr. ST Narasimhan. Honorary colleague of BRM brought the first grass model iii EEG machine after working and training in neurosurgery in USA and learning EEG under Dr. Silverman, who was the first to use firm needle to record sphenoid studies. Dr. Narasimhan presented these needles to me and I started temporal lobe EEG recordings for the first time in India in 1960 and presented a paper at the NSI. Subsequently I learnt and introduced use of single core wire threaded to an ordinary LP needle as a trocar with excellent results. This work was presented in various meetings and papers and quoted by BRM whenever he spoke on temporal lobe surgery for epilepsy. This was in 1961.

Some episodes stand out indicating the respect and relationship between the neurologist and the neurosurgeon. First was a patient named Kattiah, a poor farmer, lone earner in family, aged 30 years who came with progressive paraplegia. The myelogram confirmed compression with total block to myodil. I advised him surgery but he refused. I took a moral decision to help him and, requested BRM to operate on him. He was willing but could not do so because patient refused to sign the consent form! But I still requested BRM to operate on him in spite of his refusal considering the future of Kattiah and his family. Dr. BRM agreed, telling Kattiah that he will only put a needle in his back which should be done in the operation theatre and the surgery was completed successfully. With a little rehab Kattiah walked home! I wonder if we dare to do this today. I wrote a paper on this case in the journal of Indian Medical Association in 1961.

The second case was from railways. I was invited as a consultant to southern railway hospital where I set up a neurology department which became a referral hospital for all neurology cases from all over India for the railways. This patient Subbiah would get bouts of acute vertigo and ataxia without headaches. He recovered with symptomatic treatment. He had very soft signs which appeared paroxysmally and cleared with recovery. A provisional diagnosis of vertebro basilar insufficient was made – there were no scans in 1963. He was a subject for two DM exams and both students failed. I kept him in the ward for three months on his promise that if he died his people would permit an autopsy. One day he suddenly died at 10 am during my rounds and as usual relatives appeared unexpectedly. We had not declared him dead and resuscitation was still on. I rushed to the theatre where BRM was operating and told him that the patient had died but relatives would not permit autopsy and that I wanted the real diagnosis. With great reluctance he came to the ward and rushed the patient to the theatre under

guise of urgent decompression; anesthesia was given and he removed the brain stem with cerebellum—in a dead patient in the theatre. Even the theatre nurse did not know. Only BRM, the anesthetist Dr. Rajagopal and I knew what we were doing. Autopsy showed that it was a slow growing brain stem glioma. The specimen is in a jar in the Institute of Neurology even now!

Dr. Narasimhan was an LMP from Royapuram Medical School and yet he was accepted for training in neurosurgery in USA in the 1950s. He was the first person in India to be trained in EEG. He brought the first Grass model iii machine for private use and called his place Neurological Institute. Dr BRM appointed him to assist him in neurosurgery. But the rule was that only candidates with MBBS could be appointed. Unbelievable, but he studied for MBBS at that age, and passed the exam while he was assistant to BRM! He was then elevated to full Honorary Professor of EEG. Sadly this wonderful, ebullient, back slapping, friendly personality, who was one of the three some, BRM and Chandy being the other two, who started NSI, suddenly died in Bangalore while on a holiday. The reason I am narrating this is because the coveted post fell vacant and I went back to train in EEG at National and Maudsley and returned to occupy that post in 1960. I was proud to be the youngest Prof in Madras Medical College and Govt General Hospital. One wonders how pawns are moved against someone in favor of another! I wrote a paper on verified supra tentorial lesion, all operated and confirmed.

There was a foreign exchange crunch at one time and there was no money to buy EEG paper. I started the new system of recording behind the old EEG recording. The EEG Department received acclamation over the years and I wrote several papers.

We used to do photo metrazol studies in patients with epilepsy and study the effect IV tolbutamide, the first hypoglycemic agent apart from insulin. We studied the effects of EEG and ECG of ketamine when it was being introduced in India. In 1964, Dr. Dennis Williams (neurosurgeon) and Tricky Walsh (anesthetist) visited our institute for a week under Jawaharlal Nehru exchange scheme. This started the era of stereotactic surgery and later Dr. Kalyanaraman strengthened the team. We took advantage of EEG depth and stereo recording and spent hours on cases of stereotactic pallidotomy, hypothalamotomy, cingulectomy and temporal lobotomy for epilepsy. For the next ten years it was these hours of exciting work that I enjoyed. In 1961 Dr. Jagannathan returned after training at Queen Square and joined as the first paid Prof. of Neurology in Tamil Nadu. Later Dr. Zaheer and Dr. Krishnamoorthi joined us and we had a formidable combination in neurology in India. The rest is history.

When Dr. ST Narasimhan died suddenly I trained and became the first Honorary Clinical Professor of EEG in MMC with a unit of my own. The title changed to Honorary Professor of Neurology somewhere along the line and I retired officially in 1987 at age of 58 years. But I have gone back to teach DM students for many years after retirement and treasure these years as much as my official posting. I remember a very long series of DM students after we started DM neurology course; I developed the EEG services in the Govt Hospital and introduced sphenoid lead recordings for the first time in India in 1961 with the wire technique that Dr. Driver and Dr. Hill had taught me at Maudsley Hospital. Bipolar recordings were introduced. Earlier Dr. Narasimhan used the triangulation technique used by Gibbs and Silverman.

We used grass iii and later grass vi machines in those days. When we had no EMG box machine, I bought an ordinary Philips

oscilloscope and tried 'seeing' nerve conductions and EMGs before we got a regular EMG machine. I was helped by Dr Satyakumar who was a surgeon but a genius at electrical and electronic gadget rigging.

We used single channel scope for monitoring brain activity during anesthesia, just for the novelty of it. With the grass machine we did cortical recordings in tumors and epilepsy surgery. After stereotaxy became a rage in 1965 we got involved in depth recordings for epileptic discharges from temporal lobe before wax ablation. Recordings at various depths along a needle track were done during thalamotomies.

It has been a life full of learning and imparting knowledge, creating life long friends, young and old. Many are no more but their memories will be with me for ever.

I joined the Neurological Society of India in 1961 and had the honor to be the President in 1976. I also joined the Indian Epilepsy Association around the same time. I have been associated with the Indian Association of Occupational Health since 1961 and was honored as its President.

Honours

I was Chairman Trustee, Neuro Trust, Chennai, Chairman (i) Neuro Update Trust (ii) Neurological Research Trust and Member (i) Multiple Sclerosis Society (ii) Indian Epilepsy Society (iii) Indian Epilepsy Association (iv) Association of Physicians of India (v) Indian Medical Association (vi) Indian Stroke Association. I was also a Visiting Professor to various Indian and international universities.

We registered the Indian Epilepsy Society sometime in the nineties. I was the Founder President and this is the scientific counterpart of IEA. We started the Indian Stroke Association in 2002. I was the Founder President and the Association has grown so well. In Chennai we have started two trusts Chennai Neuro Trust and Neuro Update Trust which conduct annual updates and workshops.

My wife passed away in 1998. I have three daughters and a son Deepak. All my children have settled down and have two children each. My father passed away in 1997 and my mother in 1985 after several strokes which started in 1951. I still work 9 hours a day, six days a week and 2 hours on Sundays.

I am keen neo computer enthusiast and I spent my spare time catching up lectures of American Academy of Neurology which I carry on my iPod.

Presently I am a Consultant Neurologist and on the Stroke Team at Vijaya Health Centre and Mercury Hospital, Chennai, Emeritus Professor at Dr. MGR Medical Univeristy, Chennai and Visiting Professor, Madras Medical College.





DR. VIMALA VIRMANI (1919–1999)

President—Neurological Society of India
(1978)

by Dr. S. Mohan Das

When I joined AIIMS in May 1975 as senior resident, the faculty comprised of Professor SN Pathak who was the head, Dr. Vimala Virmani was Associate professor and Dr. Naunihal Singh. Dr. Baldev Singh was the august presence as Honorary Professor. My colleague residents were Dr. Sarasvani Rao, major (then) S. Venkat Raman and Dr. Kamala who left us after a short stint for doing the DM course. As I happened to join the department during the summer vacation my initiation in the department was handled by Dr. Virmani. The very first day she asked me to refer the first volume of AB Baker and read about language disorders with particular reference to aphasia. The same week she made me read the neuroanatomy pertaining to cerebral vasculature and gave me hands-on-training in carotid angiography which I became fairly proficient with but failed to achieve the high standards of AFB positivity attained by my predecessor (Dr. Geeta Rangan) in spite of many hours spent diligently with the microscope which caused considerable anguish to Dr. Virmani.

Dr. Virmani was born on 12 April 1919 at Lyallpur. She was one of the pioneers in establishing and expanding neurosciences in India and bringing international recognition and high academic standard.

She had explored into various fields of neurology like speech and cognition when no sophisticated instruments like MRI or PET were available.

Dr. Virmani who received various awards and positions including the position of the first lady president of NSI, had never been to primary or secondary school!! She joined a government high school for girls in 9th standard where, on the first day itself, a caustic remark by the Anglo-Indian spinster who was the Principal made her resolve never to attend that school again. She continued her studies at home under her parents' guidance.

A friend introduced her to the Professor of Psychology at the Foreman Christian College, Lahore and with his permission attended lectures and seminars as a casual student, travelling 40-50 miles to and fro each day. She recalls the gas plants that provided power to the public buses of those days which added to the summer heat and breakdowns were frequent. After two years, at the suggestion of the professor she appeared for MA in psychology and obtained the degree, which according to her, was "spurious" but certainly not cheap!

Dr. Virmani had decided to pursue medicine as a career by enrolling at the hitherto "males only" Khalsa College in Amritsar. She obtained the requisite certificate and then applied to the University of Bombay for admission to medical courses where she had to face further difficulties. Her qualifications were deemed "spurious", but thanks to the intervention of the then Dean of Grant Medical College, Dr. DP Setlma she got admission and obtained her MBBS degree from GMC. She recalls with nostalgia her undergraduate student days in the medical college where she and her colleagues had the liberty to knock at the door of any professor at any time and seek information without hesitation. There was a

joke among the students about their Anatomy Professor that if a student were to knock at his grave to ask him a doubt, he would turn over and reply". That was how the student-teacher relationship was then!

She worked in general medicine at Irwin Hospital, Wellington Hospital and Lady Hardinge Medical College and Hospital. Whilst at the Irwin Hospital she met with indifference on the part of the laboratory staff towards clinical problems and developed a determined attitude of doing things herself.

Except for a one year fellowship at the Institute of Neurology and National Hospital for Nervous Diseases, Queen Square, London she had no other formal training in neurology.

In London she worked with Dr. McDonald Critchley and developed an interest in the mechanisms of speech and their disorders as well as in body image disturbances. From these experiences grew a fascination with the neural basis for the perceptual disturbances of space (including intrapersonal space) and the perception of time. She also came into contact with Drs. Denis Williams, John Marshall and Meadows. On occasions, Sir Charles Symonds would drop in to discuss a difficult clinical problem and Dr. Virmani was thrilled at his phenomenal memory which permitted a total recall of details in history and clinical findings in patients seen years earlier.

When she returned to India there was no separate neurology or neurosurgery centres in north India. She was the first to start a section of neurology at the Postgraduate Institute of Medical Education and Research at Chandigarh. Dr. DR Gulati had already started the Department of Neurosurgery. When she moved to the AIIMS. In Delhi in 1964 she set up the Department of Neurology and continued as a faculty till 1979 when she retired as Prof and

Head of Department of Neurology. She joined the Sree Chitra Tirunal Institute from 1979 onwards as Visiting Professor. Apart from her special interest in cognition and speech, she also studied infections of the nervous system, especially atypical tuberculosis meningitis.

With regard to my personal association with Prof Virmani she was also the first person who trained me to perform lumbar puncture, under strict aseptic conditions fully gowned and masked, and instilled the importance of the vital cerebrospinal fluid and the reverence with which the fluid should be handled. A major change occurred in the department with the sad demise of Dr. SN Pathak in December 1975 and Dr. Virmani took over. Dr. GK Ahuja joined in April 1976 and Dr. Naunihal Singh left us shortly there after. Prof. Ahuja proved to be an admirable foil to Dr. Virmani and brought out fully the benevolent nature of Dr. Virmani thereby making the subsequent part of my residency a pleasant one. Her penchant for psychiatry was well known and there were many occasions when Dr. Chawla, a senior resident in psychiatry, and I enjoyed the running of the neuropsychiatry clinic by the two veterans, Prof. Neki and Prof. Virmani.

When Dr. Virmani was elected as the first woman president of the prestigious NSI in 1978, I had the opportunity to make an attempt to put her ideas on paper for the presidential oration. Subsequently when I joined the faculty she treated me on par, unlike many who treat the residents as residents for ever, and made me participate in the planning of the future neuroscience project.

She has presented about 80 papers in various international congresses and national conferences in the fields of neurology, medicine, pediatrics, psychiatry, and allied sciences; has to her credit about 70 papers published in national and international

journals; participated in Exchange Scientist Programme of National Academy of Medical Sciences; was Examiner for DM (Neurology) and MNAMS (Neurology).

Though she never talked about her personal life during my stay at AIIMS, she was more forthcoming during my visits to 15, Golf Links, New Delhi before and after her stroke. She remained cheerful in spite of the impediment caused by the stroke till her sad demise in 1999. She will always remain etched as a benevolent and kind-hearted dictator.

I thank and acknowledge Dr. KR Nair's insights of Prof. Virmani in his article on Prof. Vimala Virmani.

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(Dr. S Mohan Das is a Chief Neurologist at Krishna Institute of Medical Sciences, Hyderabad)

Photo courtesy-Dr. K Rajasekharan Nair





DR. K JAGANNATHAN

President—Neurological Society of India
(1980)

*D*r. K Jagannathan was born on 11 April 1928, the fifth child and second son to Dr. SK Nathan and Smt. Rathnammal, in Sivakasi where his father was serving as a medical officer at the Govt. Hospital. His father was a pioneer in the field of ophthalmology in late 1930s and had served in the British Army as a medical officer on board “S.S. MADRAS” hospital ship, during the First World War, and was decorated for his outstanding services by the Governor of Madras. Jagannathan’s paternal grandfather Mr. Sivasankaran Pillai had the distinction of establishing the first English medium school in his home town Sankaranainar Koil.

His schooling, was done in various schools and places due to his father’s frequent transfers. Finally after retirement, in 1940, his father settled down in Madurai. Jagan passed SSLC, at the age of 14 years, from St. Mary’s High School, Madurai and was found under aged for entry to University and had to wait for one year before joining the American College, Madurai. He spent that time at home learning typewriting and shorthand, both of which came as great assets to him in his professional life later on. After completing the intermediate examinations of the Madras University in 1945 he joined Stanley Medical College, Madras. He graduated

in 1951 and proceeded to take Diploma in Tropical Medicine (DTM) at School of Tropical Medicine, Calcutta. He entered Madras Medical Service in 1955 and served in the Govt. General Hospital. While he was there he did MD (General Medicine) in 1958 and was one of the 2 successful candidates out of 76. He was posted as a tutor in Medicine at Madurai and was assistant to Dr. MD Ananthachari along with Dr. RS Rajagopalan who had just been transferred to Madurai from Visakhapatnam. In 1958, Dr. Jagannathan was transferred to Madras by mutual consent with his classmate Dr. KA Krishnamoorthy, who, preferred to work in Madurai. In 1959 he took charge as Medical Registrar, General Hospital from Dr. KV Thiruvengadam, yet another classmate, who was proceeding to UK for training in Respiratory Medicine. Dr. Rathnavel Subramanian who was a very popular physician impressed by his dedicated work recommended him for training in neurology under the Colombo Plan. He thus went to UK and spend two years (1960-1962) at the Institute of Neurology, Queen's Square, London.

On his return he was posted as Assistant Professor of Neurology in the Department of Neurosurgery under Professor B Ramamurthy (BRM). With the creation of the Medical Neurology wing the University recognized and approved candidates for DM Neurology for the first time in India. From 1962 to 1986 he was closely associated with neurosurgeons, under the leadership of Prof. BRM. He was elevated to the Professorial Chair in 1964 and continued as Professor of Neurology till 1986 (when he retired). All the Neurologists of Tamilnadu had been trained by him. His students still recall their close and informal relationship with him during the period of training with nostalgia. He has published more than 150 papers in regional, national, and international journals in neurology. His academic eminence gave him the responsibility of becoming the Chairman of the Scientific Programme Committee

of the first World Congress of Neurology in 1989 at New Delhi. After retirement in 1986 as Head of the Department of Neurology of Government General Hospital and Professor of Neurology, Madras Medical College, he was invited to become the Director of Institute of Neurological Sciences at Apollo Hospitals, Chennai.

Evolution of Department of Neurology

The Department of Neurosurgery was started in 1950 and functioned well until 1962 when a neurologist was appointed. After that time it came to be known as the Department of Neurology and Neurosurgery. The department expanded in volume of work, services, and academic activities. There were regular routine clinical service and teaching with didactic lectures in neurology along with clinical demonstrations. The neurology section worked actively in teaching and conducting annual conferences. In twenty years the quantum of neurological contributions multiplied manifold with increase in publications in national and international fora.

The Department conducted several training programmes. The ancillary services like EEG, EMG, biochemistry and neurochemistry were some of the additions and achievements. The department also described newer clinical syndromes like the “Madras pattern of MND” which generated a lot of interest both nationally and internationally.

Neurological sciences in India is still young compared with the rest of the branches of medicine (even in developed countries). Infections of the nervous system from internal medicine, and cerebrovascular disorders largely formed the bulk of neurological disorders, considered under ‘diseases of nervous system’. In-depth studies in practice were confined to clinical localization and recognition and rarely followed down to tissue specific diagnosis

due to variety of reasons – predominantly due to lack of equipment in pathology, immunology, and biochemistry to mention a few. Because of the volume of unstudied data thus collected the subject was used as an index by examiners to assess the student's knowledge, which kindled the candidate's interest in neurology. By the turn of the fifties this interest was increasing since more and more trained neurologists from abroad were returning home and establishing new independent departments. Their pioneering work with the academic recognition of the vast clinical material opened the flood gates of neuropathology and it was established firmly with addition of various types of imaging techniques like CT-scans, MRI-scans, which further made the subject more attractive. Increased technological availability enabled many to become full time specialists. It was possible to do research. Interventional and therapeutic applications improved. In the next fifty years, Indian neurology described new clinical entities in infections, epidemiology and neuromuscular and neurodegenerative disorders, to mention a few.

The Institute of Neurology has made rapid strides and is recognized as one of the centres of repute. The Neurocentre is known as a destination in diagnosis and treatment of neurological disorders. The result of these immense activities has yielded scope for clinical research though limited by the expensive investigatory aids.

Dr. K Jagannathan is an eminent clinician and teacher. He was a Visiting Professor to and an Examiner in Neurology to various Universities in India. He is reputed to have described a new neurological disorder called Madras pattern of motor neuron disease (MMND). The condition assumed international discussion and recognition resulting in many symposia held at international levels. He has put in significant contributions in various fields in Neurology like infection, epilepsy, stroke and behavior neurology.

He is an astute clinician and is recognized as an authority in the practice of clinical neurology. His clinical acumen and management attracted patients from all over the country and from abroad. He has the distinction of being the Chief Neurologist and Head of the panel of doctors who were entrusted with the treatment of the late Dr. MGR. His leadership was acknowledged by the Prime Minister, Mrs. Indira Gandhi when she visited Madras to see MGR and accepted Dr Jagannathan's recommendations to take him to USA for further treatment. Dr Jagannathan has treated many eminent people including all the Chief Ministers of the state. He had a busy schedule and was considered workaholic putting in 14-16 hours per day at the peak of his career. He is the recipient of several awards and is the first neurologist in the country to be honoured by the Royal College of Physicians and Surgeons of Glasgow, UK with an Honary Fellowship. He served as Professor Emeritus in Neurology in Madras Medical College until he was 70.

He is one of the senior members of the Neurological Society of India and was its president in 1981. He was also the founder president of Behaviour Neurology Society of India. More than 6 orations have been endowed in his name and delivered by outstanding neurologists. He too has delivered many orations. He is also the recipient of ' Best Citizen of India' national award in 1998. Besides being a well known neurologist and teacher he was interested in sports also, serving as staff adviser for the athletics club. He played field hockey and was forward position player in the college hockey team which won the inter collegiate hockey championship when he was the captain of the team in 1949. This earned him a place in the Madras University Hockey team. He also an athlete and had won many long distance races.

Dr. Jagannathan married Sethulakshmi in 1953. They have a son, Dr. Shivkant, currently working as an orthopedic surgeon in UK. His grandson Advait is an advocate practicing in UK. They have a grand daughter named Tara Sethu Nathan.

He is presently retired from profession.





DR. S JANAKI (1927–2010)

President—Neurological Society of India
(1982)

by Dr. Meena Gupta

*D*r. Janaki was the first woman neurologist of India. She was born in Magwe, Burma on 27 May 1927. She did her MBBS from the Stanley Medical College, Madras and subsequently obtained MRCP and FRCP of Edinburgh from the Royal College of Physicians, London.

She started the neurology speciality at GB Pant Hospital, New Delhi in 1965 after her initial stint in Christian Medical College, Vellore and Safdarjung Hospital, New Delhi. She remained there till her superannuation in 1985. She was an excellent clinician and a compassionate human being. She had special interest in epilepsy, speech disorders, stroke, etc. She was the founder member of Delhi Neurology Club. She was nominated as alumnus of the National Hospital, Queen's Square, London and elected FAMS. She started DM Neurology course at GB Pant Hospital, New Delhi. She travelled widely to Europe, UK, USA and Japan and also had a practicing license in UK.

Doctor Janaki trained several postgraduates in the field of neurology. She was examinee in many Indian universities for DM Neurology and National Board of Examinations. She published

over 200 articles in various reputed journals. Her work on “Speech disorders in multilingual society” has been well acclaimed. She was a founder fellow of the Indian Academy of Neurology and President of Neurological Society of India. She was a recipient of many awards, the last being the Lifetime Achievement Award of Delhi Neurological Association (DNA) in February 2010. She was gifted with a pleasant nature and humane approach. Her other interests included swimming, reading and jewel designing.

After her retirement despite her ill health she continued to serve the society specially the poorer section till the very end. She left for her heavenly abode at the age of 83 on 10 June 2010. She is survived by a sister and two brothers. She has an equally distinguished sister Dr. S Padmavathy who is an eminent cardiologist.

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Photo courtesy-Editor, Neurology India





DR. M VEERARAGHAVA REDDY

President—Neurological Society of India
(1984)

I was born on 20 October 1931, in Brahmanakotkour, Kurnool (AP), in the then Madras Presidency, into a political and prosperous landowning family. Early schooling took place in Kurnool. I must have surprised and even shocked my father when I decided to pursue medical studies in preference to a political career, a decision he never understood but eventually accepted and even felt proud about. I was a bright student and had no difficulty in obtaining MBBS from Madras University in 1954 and MD in General Medicine from Andhra University, Visakhapatnam in 1959. When the Government of Andhra Pradesh decided to develop superspecialty departments, I volunteered to become a neurologist and develop neurology in the state. Many of my well wishers thought that I was mad since neurology was not a lucrative specialty in those days. But as I was “in love” with the subject, I did not care about the critics and left the shores of India in 1962 to get trained in neurology under Dr. FM Forster in the University of Wisconsin, USA. I have been influenced by many neurologists, some known, others not so well known, who have shaped my thinking, my attitude and the way I practice neurology. One of the neurologists that I can never forget is Dr. Eichman in the University of Wisconsin. He was a clinician par excellence though he did not

publish any papers. I adored him for his clinical skills and wanted to be like him. To further hone my skills, I spent some time in Mayo Clinic with Dr Lambert and gained insight into the clinical and laboratory methods of understanding neuromuscular disorders. I was also trained in neuromuscular disorders under the legendary Lord Walton in New Castle, UK. I was impressed by the deep knowledge and bedside manners of Lord Walton. Besides, I also learnt the organization of a neurological department from him. I really enjoyed my stay and my training abroad, but like anyone else I had my share of anxious moments. It is said that doctors make worst patients. I had first hand experience of this when I noticed fasciculations on myself. I was convinced that I was suffering from motor neuron disease. In spite of the assurance by Dr. Eichman I got myself examined by Dr. Lambert and did not rest till he did an EMG on me and assured me that I had no motor neuron disease. It was such a great relief! Another interesting incident was when I became unconscious under the effect of alcohol served surreptitiously to me in the form of soft drink. The whole experience was so distasteful that I did not touch alcohol ever thereafter. Probably for good!

On returning, I joined Osmania Medical College, Hyderabad as a physician and I must say that I was a very successful one. But my mission was to establish neurology in the state of Andhra Pradesh. It was quite a challenge, because Andhra Pradesh did not have any existing tradition of neurology. Many of the difficult patients were sent to Bombay and Madras for neurological consultations and treatment. I wanted to change this practice. Fortunately, my senior neurosurgeon colleague Prof Dayanand Rao shared my vision and was fully supportive. I set up neurology outpatient and inpatient services, myelography and other neuroradiological services with the help of Prof Kakarla Subbarao, a radiologist. I managed to bring in a brand new EEG machine. And as the high

quality EEGs began rolling out with meticulous reports from the Osmania Medical College, the word was out; neurology had arrived in Hyderabad!

But I was not satisfied. I knew that for a department to be relevant and meaningful, it had to be committed to excellence in patient care, teaching and research. My political connections came handy to convince the then chief minister of Andhra Pradesh Mr Vengal Rao to have a separate upgraded neurology department to achieve my vision. Both Neurology and Neurosurgery departments were set up in the then Nizam's Orthopaedic Hospital now known as Nizam's Institute of Medical Sciences or NIMS. Thus began the next exciting phase of my journey in neurosciences. Around this time, Professor Bala Parmeshwar Rao, neurosurgeon from Vishakhapatnam came to Hyderabad. We made a fantastic team which survives even today. Being the administrative head of NIMS at that time, I was able to import state-of-art EEG and EMNG equipment. It was my desire to make our department recognized nationally at par with other institutes of the country. I was trained in EMG and EEG by national and international experts through various workshops held in Bombay, Bangalore and other cities. Soon the DM program was started in our department, which has produced several neurologists since then. This gave me the privilege of being an examiner for DM in other national institutes of repute. The ICMR took notice of our department and I was appointed Chairman of the Neurological section of Indian Council of Medical Research from 1981-86. We did national multicentric projects on stroke, cerebrovascular anatomy, peripheral neuropathy, to name a few. My hard work had borne fruit. The discipline of neurology was recognized in our state and as a recognition to my efforts I was appointed as an Honorary Neurologist to the President of India. Incidentally I was the only neurologist in the whole state for more than two decades. Being a

government doctor, I had the privilege of treating common people as well as famous people from all fields including politics and film world. Those were exciting times, and apart from academic interactions I made deep and lasting friendships with neurologists from all parts of the country. The result was my election to the highest office of the President of the Neurological Society of India in 1984.

However all things come to an end. Due to my differences with the changed political system in the state, I very reluctantly took voluntary retirement from government service in 1983 and settled for a private consultation practice. However I remained in contact with NIMS in the capacity of an honorary consultant and Emeritus Professor. I take credit in selecting some of the best talent in the country for the department at NIMS which includes JMK Murthy, S Mohan Das, AK Singh, Subhash Kaul, Rupam Borgohain, AK Meena, Seeta Jaylakshmi and Suvarna Alladi, to name a few. I derive a deep satisfaction in seeing that the seed which I sowed 30 years ago has blossomed into a fully grown tree with flourishing subspecialities. Many national and international meetings under my chairmanship have been organized in Hyderabad, which include Annual meetings of Indian Academy of Neurology, Neurological Society of India and Indian Stroke Association and also updates on neuromuscular disorders, epilepsy and cognitive neurology.

I am in the final phase of my journey. God has been kind and I am still in active practice and enjoying reasonably good health I receive tremendous love, affection and respect not only from my department in NIMS, but from the entire neurological community of the state. They call me, father of neurology, in Andhra Pradesh. I was involved in the formation of the Andhra Pradesh Neuroscientists Association and Twin Cities Neurological Club,

both of which have honoured me to be life time patrons of these associations. I was conferred DSc by University of Health Sciences in 2009 for my lifetime achievement in neurosciences. I was one of the few people chosen to welcome and shake hands with American President Bill Clinton when he visited Hyderabad, which according to me was an honour to the speciality of neurology.

On a personal note, the source of my strength and sustenance has been my family which has silently stood by me through thick and thin. My wife Kamala even now enjoys national and international trips with me though lately she insists on business class ! Both my children decided not to follow my profession and carved their own successful careers in engineering and finance without any kind of help from me. This trait self dependence probably runs in our family. I love them and am proud of them. The cycle of life moves on!

I am currently working as a Senior Consultant Neurologist at Medinova, Hyderabad and am Emeritus Professor at Nizam's Institute of Medical Sciences, Hyderabad.





DR. BS SINGHAL

President—Neurological Society of India
(1986)

*I*t has been a long journey from my childhood in Mount Abu to where I am today, Head of the Department of Neurology at Bombay Hospital and father of two children who are successful doctors in their own rights.

I was born at Mount Abu, Rajasthan on 23 January 1933. I lost my father when I was seven, but my mother was very supportive. Although it was not conventional for people in my town to go overseas, my mother stood by my decision. I would have continued my education in Jaipur, but my brother was keen I go to Mumbai and broaden my horizons.

Mount Abu, was a small town and my childhood days were the happiest. We did not do drugs or smoke; we used to camp and trek! It was a simple life. It was a surprise to me when I went to bigger cities like Jaipur and Bombay that their schools and colleges had no playgrounds.

The other thing I remember about my school days are my teachers. I studied in a municipal school, but had very dedicated teachers. Apart from teaching, they also inculcated the values of life. Our

school had a program through which we would go at least three times a week to teach children. We were also encouraged to spend time in hospitals with patients. All these experiences made a great impression on me.

I had a brilliant academic career. My undergraduate (1956) and postgraduate training in Medicine (1959) was at Grant Medical College and Sir JJ Group of Hospitals in Mumbai. I trained with Dr. Noshir Wadia (a father figure in neurology) who became my mentor. It was he who inspired me to specialise in neurology and encouraged me to come back from London and work at Sir JJ Group of Hospitals and Bombay Hospital and teach at Grant Medical College. Subsequent training in neurology was at the Institute of Neurology, Maida Vale Hospital, London. I returned to India in 1962 and helped develop the Departments of Neurology at Grant Medical College & Sir JJ Groups Hospitals and Bombay Hospital Institute of Medical Sciences. Earlier, I was Honorary Professor and Head, Department of Neurology, Grant Medical College, Bombay from 1981–1991.

I obtained MRCP (Edinburgh) in 1960, MRCP (London) in 1961, FRCP (Edinburgh) in 1973, FAMS in 1984 and FRCP (London) in 1985.

I was a recognized postgraduate teacher in Neurology from 1970–2008 and have trained 43 DM (neurology) students and continue to do so. I have partaken in lecture programs (for neurology education to non-neurologists) all over India organized by several medical organizations.

I was President of the NSI in 1986, Indian Epilepsy Association in 2000-02 and Indian Epilepsy Society in 2003-04. I was the national delegate for WFN in 1985 to make a successful bid to organize the World Conference of Neurology in New Delhi in 1989.

I have been associated with the Indian Epilepsy Association since its inception in 1971 and organized several community programs. I founded the Parkinson's Disease and Movement Disorder Society which has several support groups throughout India. As a secretary of this Society, I organized the '7th World Parkinson's Day International Symposium' in Mumbai in 2003. Thirty-eight international speakers from around the globe addressed about 380 neurologists from all over India and 250 patients and caretakers.

I am a member of several International Associations including American Academy of Neurology (Corresponding Fellow 1979), American Neurological Association (Corresponding Member 1991), Association of British Neurologists (Honorary Member 1994) and French Neurological Society (Honorary Member 2006). I was the vice President of the Asian Oceanian Association of Neurology (2004-08) and Regional Director for the World Federation of Neurology (WFN) for 2005-2009. I am the President of the Movement Disorder Society (Asian and Oceanian section) for 2009-11.

I have been a member of several research groups of the WFN. As a representative from India and adjoining Asian regions, I was invited to serve on the Working Group of World Health Organization (WHO) for multiple sclerosis and Parkinson's disease.

I am the recipient of the following awards: Netaji Memorial Oration, Association of Physicians of India (1984), Dr. RG Ginde Oration, Neurological Society of India, Madras (1993), Prof. RN Chatterjee Oration (13th Annual Conference of the Association of Neuroscientists of Eastern India) (1999), Dr. BC Roy National Award 1999, Priyadarshni National Academy Award, Mumbai, for outstanding contribution to the field of medicine (2004), Wockhardt Award for Medical Excellence in Neurology

(2005)/Lifetime Achievement Award and Gold Medal (2010) and Prof. BM Sharma Oration, Indian Epilepsy Association Jaipur (2005).

I have been with Bombay Hospital since 1962, and the most important lesson I have learnt in these years is the art of patient interaction. A successful doctor understands his patients and not just their ailments. I have found that spending time with patients in the wards has not only made me a better doctor but has also taught me about life. I still hold education and patient care as most important. With this mission in mind, I started the Neurology Update which holds theme-based conferences every alternate year.

In Parkinson's disease not only the affected individual but the family suffers as well. Therefore, I created the Parkinson's Disease and Movement Disorder Society (www.parkinsonssocietyindia.com). Through this Society, with the help of my team, I have created support groups for those affected by it. We have tried to improve the quality of life for Parkinson's patients through yoga, specifically Iyengar yoga, which has proved very beneficial.

In loving recognition of my work, late Dr. Sorab Bhabha, a brilliant young neurologist of Mumbai (we miss him) had proposed the Singhal an oration was proposed in my honour at the World Federation of Neurology meeting. The first lecture was given at the recently held International Congress at Bangkok.

I have over 200 publications in National and International Journals and Book chapters to my credit. The major contributions have been in the field of non-compressive myelopathies and demyelinating diseases. I was able to recognize and describe a form of leukodystrophy unique to the Indian subcontinent

(megalencephalic leukoencephalopathy with subcortical cysts). Through international collaboration I subsequently identified the genetic defect in this condition.

Future goals

In the coming years I plan to continue patient care, do clinical teaching and research. I wish to reach out to the community by increasing awareness of neurological illnesses (especially in the rural areas) through interaction with governmental and non-governmental organizations. I also desire greater interaction between Indian and overseas neurologists. It is my earnest desire to strengthen the existing departments of neurology so that they can provide the best available training and care.

My wife Dr. Asha Singhal is consultant gynecologist at the Bombay Hospital Institute of Medical Sciences in Mumbai. She has stood by me all these years. My daughter Dr. Seema Singhal is Prof of Hematology and Oncologist at the North West University Hospital in Chicago, USA. My son Dr. Aneesh Singhal is Associate Professor of Neurology at the Harvard Medical School at Boston and Stroke specialist at the Mass. General Hospital, Boston, USA.

I am currently Director of Neurology at the Bombay Hospital Institute of Medical Sciences, Mumbai.





DR. SHYAMAL KUMAR SEN (1922–2011)

President—Neurological Society of India
(1988)

by Dr. Kalyan Bhattacharyya

*D*r. Shyamal Kumar Sen was born into a middle class family in 1922, in a village in the district of Bankura, West Bengal, on the Dwadeshi day, two days following the immersion of the Goddess Durga. He always made it a point to celebrate his birthday on that auspicious day, following the Durga Puja and not on the basis of the actual calendar day when he was born. It speaks of a certain devoutly religious trend in him which guided him all his life.

He passed matriculation with distinction and following the mandatory intermediate course in science, he entered the hallowed portals of Medical College, Bengal in 1939, the year World War II broke out. Dr. Sen spent his entire undergraduate days during that tumultuous period and experienced all the travails and tensions, violence and vicissitudes. He studied with eminent physicians, surgeons and gynaecologists like, Professors MN De, JC Bannerjea, Sailen Sen, Panchanon Chatterjee, Moni Sarkar and Sudhir Bose, among others, the luminaries in the treasured history of that college. He won the Class Assistant Award as the best student of medicine at the end of the 3rd year and after passing the MBBS

examination, was appointed as the House Physician to the legendary clinician, Professor Jogesh Chandra Bannerjea.

Jobs were hard to find in those days and Dr. Sen joined the Department of Physiology in 1948. Later, he joined the Department of Pathology as a Demonstrator and started preparing for MD examination in General Medicine. He found the study of Pathology arresting and took a special interest in the nervous system, which he believed, was the beginning of his life-long passion for this subject. He duly passed his MD examination in 1956 and was appointed as the Resident Physician in Medicine in the Medical College, a position he cherished most and was never tired of narrating his experiences, academic or otherwise, during that period. In 1959, on the nomination of the Government of West Bengal, he sailed for the United Kingdom for further training at the National Hospital for Neurology and Neurosurgery, Queen Square, London.

Dr. Sen was immediately awestruck at the milieu in Queen Square which taught him the tone and temper of neurology. The masters of clinical neurology like Sir Francis Walshe, John Marshall, Roger Gilliatt, MacDonald Critchley, Dennis Williams, Helen Dimsdale and William Goody, among others, cast a spell on him and once he told me that since that time, he was virtually wedded to clinical neurology and given his adherence to the precepts of the Hindu philosophy, he felt that he was perhaps preordained to revisit this world of ours to study neurology a couple of times more in order to master its intricacies. In a way, he echoed the sentiments of the greatest ever off spinner from India, Erapalli Prasanna, who wrote in his autography, entitled, *'One More Over'*, that one life is not adequate to learn each and every craft of off spin bowling and such assertions speak of the devotion and dedication for the subject they pursued. One of the statements of Dennis Williams stuck with

him and he used to narrate it to his students, *'Sen, when I put my pen down, I have made up my mind. If I haven't, I'll never make it.* He also treasured highly his association with his contemporaries, like Peter Kynaston Thomas, William Ian McDonald, Sir Roger Bannister, Richard Hughes, Kevin Zilkha, DA Jelenik and Pamela Fullerton, all of whom in later life turned into authorities in their respective specialities. Stanley Cobb, Dennis Hill and others, honed his skill in electrodiagnosis of neurological ailments and additionally, he befriended neurologists like, Govind Arjundas, KS Mani, K Jagannathan, BS Singhal, Noshir Wadia and others, all of whom later became leading neurologists in India. Thereafter, he had a stint of training as the house physician to Lord Russell Brain at the Maida Vale Hospital, where he also met Valentine Rogue, an outstanding neurosurgeon of that time. Subsequently, he trained at the Haywards Health Hospital of Neurology and Neurosurgery at Sussex, where, interestingly, he met KK Sinha, the legendary neurophysician from Ranchi, Jharkhand, who taught him one or two things about how to drill the skull bone for draining subdural haematoma, since he was working at that time as a Registrar in neurosurgery! He also worked at the Midland Centre of Neurology and Neurosurgery, where he met Edwin Bickerstaff, known all over the world for his incomparable book on clinical examination in neurology, and as a matter of fact, he was actually working on this book at that time. Finally, he went to Edinburgh Royal Infirmary and met personalities like John Simpson, J Slater, JB Stanton and others. In his final days there, he trained in neuroanatomy and gained expertise in cutting the human brain under the guidance of C Romanis and others. The wheel of time had completed its full circle and Dr. Sen's academic peregrinations in the United Kingdom thus came to a fruitful and profitable end.

After getting MRCP (Edinburgh) in the early 1960s, Dr. Sen joined Medical College, Bengal, his alma mater, as Assistant Professor in

the Department of Medicine in 1963. He was allotted one outdoor a week for examining patients with neurological ailments and he also delivered didactic lectures on neurology to the undergraduate students. Neurology was a fledgling subject and his initial experience in order to create a unified Department of Neurology and Neurosurgery was traumatic, to say the least. However, emboldened by his extensive training, he was particularly keen to set up such a department and he approached the mandarins of West Bengal Government, who were not always receptive to new and novel ideas; yet he stuck on gamely and negotiated with the powers that be and could ultimately convince them to help nourish such a nascent subject into a worthwhile department in Medical College, Bengal. Finally, the department was established seven years later in 1970 and he assumed the charge of the Head of the combined department. It was a modest beginning and equipments were acquired gradually, though with much persuasion, and slowly but inevitably, it turned into a premier centre for neurological training and management in West Bengal.

Dr. Sen was inclined to religious traits, which translates into philosophical contemplations and he grappled close to his heart, almost with hoofs of steel, the precepts of Shri Shri Ramakrishna Paramhansadeva, one of the most revered philosophical preachers in Bengal in the 19th century and importantly, the master of Swami Vivekananda, the cyclonic monk, as somebody had chosen to describe him. He turned into a disciple of Swami Abhedananda, one of the disciples of Shri Ramakrishna and performed puja every morning as long as his health permitted and he frequently visited the monastery, established by his master, where in the later days, sometimes I used to accompany him at his persuasion. He virtually committed to his memory the preachings of the master and always carried a copy of the book, '*Ramakrishna Kathamrita*', literally meaning the nectar of the spoken words, and out of sheer love, he

presented me with a copy of that book, hoping fervently that I would also be following in his footsteps. This book and his personal overcoat, which he lent me when I went to Queen Square, engineered by his sole effort, remain as two of the most cherished earthly items with me.

The last few years of his life were marred by a number of serious illnesses though he fought them with exemplary fortitude. In the mid-nineties, he developed unstable angina for which stenting operation was carried out and this was soon followed by symptoms related to enlarged prostate which was operated. Yet he continued to examine patients and was not chary of attending conferences both here and abroad. However, in 2003, he suffered from an attack of cerebral infarction and the resultant aphasia, which devastated him. His speech became mostly unintelligible and he used to weep whenever I used to visit him in the hospital or at his home. Since his right hand was paralysed, he started learning writing with the left hand even at that age and to a large extent, became proficient. Supported by an attendant and seated in a wheel chair, he still used to attend the regular monthly clinical meetings and other important conferences in the city. Towards the end of 2010, he developed carcinoma in the prostatic capsule which led to widespread metastasis. He went on fighting till he was admitted with an attack of sepsis. He died on 19 June 2011. He was thus put out of his interminable pains at last.

My association with Dr. Shyamal Sen dates back to 1973 when I had my soft-footed entry into the premises of Medical College, Bengal. We all noticed his attire, which was immaculately English in nature and his personality was domineering and imperious, to say the least, to the extent that none of us could gather the courage even to approach him. He took particular care about his apparel and all along the summer, he used to wear a white suit and during

winter a black one, and his shoes were always spotless. Additionally, he used to wear different ties for different days, or for that matter, change them in the evening, as I remember. In the afternoons, he used to come to the chamber of our legendary Professor of Anatomy, Professor Samar Mitra, a life-long friend of his, and there he used to sit with his postgraduate students and discuss their theses and that is where I had my first glimpse of Professor Ambar Chakravarty, one of his most notable students. Later, when I entered the clinical wards, I was placed in his unit and Professor Arabinda Mukherjee, another worthy student of his, was serving as his house physician at that time. He was one of the most magnificent teachers in my experience, here or abroad, and was particularly endowed with exceptional thespian talents. We marveled at his theoretical lectures and shall never forget the one on aphasia. He could enact the speech of all kinds of aphasic patients and in particular, his demonstration of Wernicke's aphasia took one's breath away. Neologisms, word salad, paraphasia, periphasias,... all were demonstrated with consummate ease and then echolalia, pallilalia, perseveration, were enacted with equal facility. In bedside teaching, here or abroad, I have had hardly found his peer and my palm unhesitatingly goes to him. The ease, elegance and mastery with which he used to demonstrate the signs and the nonchalance with which he used to dissect the symptoms in order to arrive at a diagnosis amongst a medley of conflicting data, was simply amazing. I humbly submit that I was soon admitted into his affections and I have no hesitation in admitting that he was singularly instrumental in kindling my interest in neurology, though it will be invidious if I ignore one of my most revered teachers, Professor Bhaskar Ray Chaudhuri, in this issue. Though convivial in general, he was quite a martinet and was exacting in his demands for high standards of performance from his residents and students. I cannot help but narrate a story. Somehow, I developed a curious and inexplicable tendency towards

diagnosing tricuspid regurgitation in any case of mitral regurgitation in case the systolic murmur was heard close to the parasternal border, whether pedal oedema, engorged neck veins, increase in the intensity of the murmur with inspiration or pulsatile liver were observed or not. One day he was livid and admonished me in public to the extent that I almost wept, though in no time, he consoled me. Later, when he was past 70 years of age, I could feel a dramatic change in his personality, if not a kind of ennui, and he virtually clung on to me and it was not only neurology but all kinds of subjects under the sun which he loved to broach and discuss with me. He was endowed with a natural sense of humour and wit and he equally possessed the unique capacity of lifting the downbeat mood and the sagging morale of one and all, simply by a few spoken words, expressed succinctly and with precise allusions. His rare gumption and masterly advice helped all of us to go ahead in our chosen profession.

Indeed, Dr. Shyamal Kumar Sen was a remarkable character an astute clinician, an outstanding teacher, generous and helpful towards his students, a man of rare traits, with multifarious interests, and endowed with an extraordinary sense of wit and humour. We all have to wait for a long time to find his peer and I shall personally remember him, with all respect and reverence, till ineluctably, I shall return one day to the elements.

(Dr. Kalyan Bhattacharyya is Professor and Head, Department of Neuromedicine, RG Kar Medical College and Hospital, Kolkata)



A tribute to Dr. Shyamal Kumar Sen

by Dr. Ambar Chakravarty

*W*riting this resume about Dr. Shyamal Sen, is indeed an emotional exercise for me. My association with Dr. Sen dates back to almost 40 years starting as a student, then a trainee, a colleague and finally and currently as his personal physician. I first met him as a second year medical student when he along with our Professor of Anatomy used to teach neuroanatomy together with patient demonstration. I was very impressed not only by his clear exposition of the subject but also by his immaculate white suit and shiny patent leather shoes – his trademark dress in the campus! I had a real taste of his teaching in the clinical classes doing neurology ward and later during postgraduation. His method was very systematic – stressing on accurate and meticulous elicitation of history, superb clinical demonstration of physical signs and finally discussing the ‘where’ and ‘what’ of the lesion. As a guide in clinical training and research, nothing was spoon fed – trainees had to find solutions themselves and take overall care of patients, but his supervision though often not apparent was always present. He was a task master who would grill trainees mercilessly but at the end, shower them with love and a box of candies. Being trained by such luminaries like Lord Russell Brain, John Marshall and Edwin Bickerstaff, his teaching

and training methods were essentially a practice of British neurology on Indian soil. This was a boon to me when I went to UK for higher training.

As a senior colleague at VIMS, he always used to uplift my image to peers, students and patients and the administration. Besides clinical neurology I have learnt the art of teaching (including grilling students!), scientific writing and speaking and organizational work from him. What I could not pick up was his administrative capabilities.

He was a deeply religious person, blessed by Swami Abhedananda, a direct disciple of Sri Ramakrishna. His knowledge of Sanskrit language and ancient scriptures and music was immense. His zeal to work and learn new things were unparalleled. Even when he was grossly disabled and had expressive dysphasia, he continued to attend most neurology meetings in the city and appreciated good talks and good case demonstrations. His comprehension remained reasonably intact.

On occasions, we did have instances of disagreement and clash of personalities, (not unlikely when two egoistic persons work together), but he used to smooth them all like a father does with his son. If I have been able to make the slightest of impact in the field of neurology in this country, it is largely due to him.

(Dr. Ambar Chakravarty is Honorary Professor and Head of Neurology at Vivekananda Institute of Medical Sciences, Kolkata).





DR. K SRINIVASAN

President—Neurological Society of India
(1992 and 1993)

I was born on 24 August 1934. My undergraduate (MBBS in 1956) and Postgraduate (MD in 1961) education was completed from Stanley Medical College, Ph.D from Madurai Kamaraj University and DM (Neurology) from Madras Medical College in 1969. In 1969 I got my MRCP and FRCP (Edinburgh and Glasgow) in 1976. I also did a one year postgraduate Fellowship at Institute of Neurology, London from 1968–1969.

I worked as an Assistant Professor in General Medicine at Stanley Medical College from 1961 for six years, as Assistant Professor of Neurology at Madras Medical College till 1970 and as Professor of Neurology at Madurai Medical College from 1970-1991. The Neurology Department at Madurai Medical College was established by me in 1970 with an intake of 2 postgraduates every year. This 1200 bed general hospital is recognized as a superspecialty in neurology and neurosurgery. An integrated teaching centre for neurology and related specialities recognized for postgraduate clinical training for MD, DM, and NBE students and also overseas graduates was developed by me. International neuroscientists including Dennis Williams (Q.Square), Reginal Kelly (UK), John Simpson (UK), T Rasmussen (Canada), Johnson (UK,

PG Medical Director), H Lechrerr (Austria) who visited the institution appreciated the work. I was encouraged and guided by professors like M Natarajan, B Ramamurthy, Arjundas and Jagannathan. My significant contributions include establishment of DM Neurology Course at Madurai in 1971 providing multispeciality care.

I was Visiting Professor for clinical sessions in neurology and medicine to various institutions in India and abroad. I was also the national delegate for International Neuroscience Congress at Budapest (1990), World Congress of Neurology, Hamburg, 1986, API Conference, Ceylon and Asian Oceanic Congress, Seoul (1995).

I was an Examiner in neurology for NBE and DM courses in various Indian Universities. I was also awarded several orations including the Dr. TK Ghosh oration at Dibrugarh in 1995, Netaji oration in API at Bangalore, Chopra oration in IAN in 2000. I was recipient of the Lifetime Achievement Award by Dr. MGR University, Chennai in 2011.

My work and publications relate to neurosyphilis, coma-diagnosis, prognosis and venous strokes.

I am a Dedicated Teacher with the motto: To learn from the patients (and colleagues and literature) to serve them better and to teach the students. I believe that experience and grasp of Internal medicine over the years is essential for maturity and expertise in any speciality, especially in clinical neurology.

My wife Dr. Jayalakshmi is a retired gynaecologist from Southern Railways. We have two sons. One works as a Bank Manager and the other is a neurologist at National Hospital, London.

Presently I am a Consultant Neurologist at Apollo Specialty Hospital Madurai, Emeritus Professor at Dr. MGR Medical University and Visiting Professor at Annamalai University.





DR. M GOURIE-DEVI

President—Neurological Society of India
(1995)

*“ When the isolated drops meet
They share the majesty of the ocean
To which they belong”*

....Mahatma Gandhi

*I*t is a privilege to be asked to write about oneself but at the same time is indeed a daunting and challenging task to recall events from the rich mosaic of memories of one's life. I crave the indulgence of the reader as the narrative may appear too personal in certain situations or too official in other aspects.

Childhood and School Education

I was the eldest of five children of Mr. Mandaville Rajeswara Rao and Smt. Satyavati and was born on 13 December 1938 in Anakapalle, Andhra Pradesh. I was blessed with educated parents and my maternal grandfather and uncle were not only educated but were social reformers actively engaged in freedom struggle. Girls in Arya Vysya community were married young in those days but with my family background I was fortunate to have the

opportunity to pursue studies and realise my full potential, cherished dreams and desires. My father an Engineer in All India Radio was in a job with frequent transfers almost every two years and therefore I had the unique opportunity of school education in different cities of the country, learning different languages and absorbing diverse cultures from Delhi and Jalandar in the North to Thiruchirapalli (Trichy) and Chennai in South and Kolkata in the East. This experience stood me in good stead as I could quickly adapt to the local milieu in later professional life. Vidyodaya Girls' high school at Chennai provided ideal ambience for education and also development of fine arts (I understand that even today it enjoys a prestigious position among the schools). I recall that the Secondary School Leaving Board gave me exemption of 3 months as I was under age to take the SSLC examination (The minimum age was 14 years and 6 months). At this examination in 1953 and Intermediate Sciences in 1956 at Anakapalle I had secured first rank.

Medical Education

Deeply influenced and inspired by my uncle, who was recipient of the coveted Kalaprapoorna award, I chose medical profession and entered the portals of Andhra Medical College (AMC) and King George Hospital, Visakhapatnam, Andhra Pradesh in 1956 and the Ladies' hostel became my home for the next 6 years. The AMC motto "Ne Quid Nimis", Latin phrase meaning 'Let there be nothing in excess' says it all about medical profession. Dr. P Brahmayya Sastry, Professor of Physiology, inculcated a deep passion for neurophysiology, which was to be a great asset in the years to come for learning the principles of neurology. Having bagged gold medals and prizes in pharmacology (1958), pathology (1958), medicine (1960) and the highest award of "Silver Jubilee Committee" prize for the best outgoing student in 1961, I had the right to choose the subject for postgraduate course of my interest

rather than accept the specialty allotted by the college authorities. I opted for MD course in pathology as I had the great fortune of being taught by eminent teachers, Dr. Govind Reddy and Dr. Bhaskar Reddy, further fortified by the awards of Bhaskar Menon prize by Andhra Medical College and Tatachari Gold medal by Andhra University for top score in pathology in the university and distinction in pathology (which I believe I had secured after a gap of 15 years). In less than a month, I changed to Internal Medicine with regret due to the sentimental influence of my father who read in the news paper that a pathologist died after conducting post-mortem. In retrospect the decision was a wise one as I learnt excellent clinical skills under the tutelage of Professors of Medicine, Dr. Kondandaramaiah and Dr.VS Raghunathan. The love for pathology remained with me for long and a decade later I had the opportunity to learn muscle and nerve pathology during Commonwealth Fellowship at Newcastle General Hospital, Newcastle upon Tyne and Royal Free Hospital, London.

After two months at Andhra Medical College, leaving behind my respected teachers and friends, I moved to All India Institute of Medical Sciences (AIIMS), New Delhi in 1962 as I was successful in getting admission to MD in Internal Medicine at this prestigious institution. The discipline inculcated by Prof. KL Wig, Dean and Professor of Medicine, superb bed side clinics, rigorous clinical work, heavy academic schedule, long hours of work and the integrated multidisciplinary teaching programs formed the cornerstone for grounding in medicine.

Neurology Education and training to be a neurologist

Dr. James Austin, Visiting Professor of Neurology well known for the seminal contributions in metachromatic leucodystrophy, taught neurology at AIIMS during 1962 to 1964 while I was pursuing MD

in Medicine. Some of my colleagues and I enamoured by his teaching chose to become neurologists. The interest in neurology kindled by Dr. Austin was further fortified by Dr. Baldev Singh, father of neurology in India, affectionately known as “Papa Neuron” when he took up the assignment of Professor of Neurology in 1965. After working for a year as Registrar in Medicine, I moved to the Department of Neurology as Registrar and subsequently pursued DM course in Neurology for the next two years (1966-1968) under the tutelage of Prof. Baldev Singh. Dr. Vimla Virmani, Associate Professor of Neurology evoked my interest in muscle disorders, which I continued to pursue over many years. Dr. PN Tandon, Professor of Neurosurgery, a charismatic teacher, taught us the principles of neurosurgery necessary for a trainee in neurology. I was so much under the spell, that I seriously considered doing MCh in Neurosurgery after completing DM in Neurology. Had I done both the courses, I would have perhaps been the first in India to be trained as a neurologist and Neurosurgeon. My first exposure to experimental neurology was through the thesis work for DM Neurology. I had to develop an experimental model of temporal lobe epilepsy in monkeys with intracerebral injections of alumina cream (aluminum hydroxide cream), do serial EEGs and estimate cortisol at different time points. Prof. PN Tandon had the tremendous patience to teach me, a novice, to use stereotaxic machine and to create the lesion. Unfortunately this study could not be pursued due to difficulty in consistently producing the model of chronic epilepsy and hence the research topic was changed to the estimation of cortisol levels in patients with temporal lobe epilepsy (the terminology used at that time) and compare with generalized epilepsy. I had reasonably good exposure to laboratory techniques. The present generation of neurology trainees may be interested to know that we used to perform neuroradiology procedures such as carotid angiography,

pneumoencephalography and myelography as there were very few trained neuroradiologists in the country.

It was a proud moment when I received the degree of DM in Neurology in 1968 as the first batch of students. Before I move to the next phase of professional career I wish to pay my tribute to Prof. Baldev Singh my mentor, guide and philosopher who not only taught neurology but shaped my thinking process to intertwine clinical and basic neurosciences, instilled confidence in my moments of despair and dejection not only during the period of training, but for many years to come, when I would unburden my problems and seek his guidance.

Brief stint at Hyderabad (1968 to 1970)

The appointment as Assistant Professor of Neurology in 1968 at Osmania Medical College, Hyderabad gave me an opportunity to work with Dr. MVR Reddy, Professor of Neurology and Dr. B Dayananda Rao and Dr. Raja Reddy of the Neurosurgery Department and Dr. Kakarla Subba Rao, Department of Radiology, as a multidisciplinary team. A mention has to be made of our two publications, lumbar canal stenosis and Vein of Galen malformation which appeared for the first time in the Indian literature. During this period from 1968 to 1970, I could continue research in cortisol metabolism moving away from epilepsy to intracranial hypertension at the prestigious National Institute of Nutrition (NIN), Indian Council of Medical Research. Dr. C Gopalan, Director of NIN, almost convinced me to choose a career of scientist and join NIN but perhaps my deep interest in clinical neurology prevented me from following his advice. I did have interest in neuroendocrinology and even got a placement in a laboratory in Washington where pioneering work was being done. Unfortunately or fortunately (?) my application to National Institute of Health

Fellowship was rejected by the screening committee at Indian Council of Medical Research and thus interest in neuroendocrinology was nipped in the bud. Hyderabad hosted the 19th Annual Conference of the Neurological Society of India in 1969 under the leadership of Dr. Dayananda Rao, whose organising skills in planning, prioritizing and meticulous execution amazed me and as is my habit I made copious notes on the processes and procedures, which became handy when later I assumed responsibility of Organizing Secretary of the 29th Annual Conference of the Neurological Society of India in 1979 at the National Institute of Mental Health and Neurosciences, Bangalore.

At Safdarjang Hospital, New Delhi (1970 to 1977)

Feeling of restlessness and isolation from my parents prompted me to return to Delhi in 1970 as Consultant Neurologist (Central Government Health Scheme) at Safdarjang Hospital. The department of Neurology was established by Prof. Janaki in 1960's and after she moved to Govind Ballabh Pant Hospital, Dr. Nigam manned the department for a few years when I took over in 1970. As the only neurologist working under the administrative control of Head of Department of Medicine who was averse to development of neurology, for a young neurologist to develop the specialty was indeed a daunting task, and with a less helpful medical superintendent, the situation was quite depressing. It was a daily struggle, a battle to get inpatient beds, house staff to work in the department, manage the outpatient, inpatient and EEG and EMG services, face enormous hardships to procure secretarial assistance and be on call duty everyday for the next 7 years. All was not dark and gloomy, a silver lining was the appointment of Dr. B Sankaran, an eminent orthopedic surgeon, as Medical Superintendent, who brought a dramatic change to the scenario from nihilism to enthusiastic anticipation and rapid development

of specialty of neurology. Outpatient and inpatient services were established and medical and technical staff was also provided giving the department a respectable place in the city. Dr. Sriramachari, Director of Institute of Pathology, Indian Council of Medical Research, located in the Safdarjang Hospital campus, encouraged research and with his guidance work was initiated in the area of muscular dystrophy, leprosy neuropathy and osteomalacia induced by antiepileptic drugs.

It was a matter of sheer luck that an electromyography machine was purchased even before I joined the department, a foresight of the previous dynamic Medical Superintendent, Dr. RD Iyer, though a general surgeon, could visualize the future needs of this equipment. In the early 1970's electromyography was at its infancy in India. There were only a few neurologists, Dr. Irani (now Dr. Mrs. Wadia) in Bombay, Dr. Taori in Vellore, Dr. Chopra in Chandigarh and Dr. Naunihal Singh at Delhi who had interest and experience in the field. Equipped only with theoretical knowledge about electromyography and absolutely no practical skills, it was a period of self learning to get to know the techniques and develop confidence to perform the tests. Thereafter I ventured to study neuropathy in chronic renal failure, leprosy and Guillain-Barre syndrome. The concept of averaging had not yet been introduced, therefore for the sensory conduction studies photographic superimposition was done with the camera provided along with the equipment and latency and amplitude measurements were determined from the negatives and prints. This EMG machine had no facility for recording the graphs and hence all salient observations were photographed from the screen. To facilitate quick reporting of the results, instead of depending on the hospital photographer, a small dark room adjoining the EMG laboratory was established and the senior technician fortunately, also a good photographer, helped in developing the negatives and printing.

Description of a simple technique of phrenic nerve conduction by John Newsom Davis attracted my attention and after standardizing the technique in control subjects, I evaluated its usefulness in predicting ventilator failure in Guillain-Barre syndrome. With great trepidation I presented this work at the Third Asian and Oceanian Congress of Neurology at Bombay in 1971 and was overwhelmed by the appreciation and encouragement of Prof. John N Walton and Prof. PK Thomas. This interaction facilitated the award of Common Wealth Medical Fellowship two years later. Teased nerve fibre techniques were being used to add the dimension of quantitative morphometry for better delineation of peripheral neuropathies. Therefore I also learnt “teased fibre” techniques under the able guidance of Dr. MC Vaidya, Professor of Anatomy, All India Institute of Medical Sciences, who had interest in leprosy and had excellent facilities. This collaboration led to single fibre studies in leprosy neuropathy. Close liaison was established with leprosarium at Shahadra, Delhi and Japanese Leprosy Mission for Asia (JALMA) at Agra and I used to regularly give lectures on leprosy neuropathy to medical officers and trainees in leprosy.

With major neurological facilities being available at AIIMS with my teachers at helm of affairs, it was an arduous task for me to give an identity to neurology unit at Safdarjang hospital. Over the 7 years with support from administrative authorities and colleagues it was possible to make the unit a viable entity catering to a large number of economically disadvantaged people. Interestingly there were no paying wards at this hospital but burns ward, neonatology ward, central institute of orthopedics and rehabilitation services, superspecialties of cardiology, cardiac surgery, pediatric surgery, neurology and neurosurgery provided good clinical services. Safdarjang hospital was affiliated to Delhi University for postgraduate studies (MD and MS in most of the specialties), and later when University College of Medical Sciences (shifted later to

Shahadra) was established, it was attached to Safdarjang hospital for teaching and training of undergraduate students. First few cases of atrophy of a single upper or lower limb, later labeled as monomelic amyotrophy, were seen at SJH and the preliminary observation on the therapeutic utility of hyaluronidase in management of spinal arachnoiditis at Safdarjang hospital, laid the foundation for long term research for the next two and half decades.

The award of Common Wealth Medical Fellowship in 1973 provided an opportunity to further my research interest in disorders of muscle and peripheral nerves, initially at the Regional Neurological Centre, New Castle upon Tyne and later at Royal Free Hospital, London. In addition to clinical aspects, I acquired further skills in electromyography and nerve conduction studies, was exposed to histopathology of muscle and nerve, single teased nerve fibre studies, quantitative morphometry and electron microscopy of nerve. On return to Safdarjang hospital in 1975, I could continue many of these techniques and usefully apply to study peripheral neuropathies and disorders of muscle.

I soon realized that working in a major Institute with advanced facilities and colleague neurologists and neuroscientists would be a more appropriate place to develop the area of neuromuscular disorders and electromyography. It was sheer coincidence or providence that almost at the end of 1975, I was offered the post of Associate Professor of Neurology at Christian Medical College, Vellore. There were also other possibilities of similar opportunities at National Institute of Mental Health and Neuro Sciences (NIMHANS), Bangalore, All India Institute of Medical Sciences, New Delhi, and Post Graduate Institute of Medical Education and Research), Chandigarh. The final choice was NIMHANS for professional and personal reasons. Prof. RM Varma (Director of NIMHANS), Prof. KS Mani (Professor and Head of Department of

Neurology, NIMHANS) and Dr. S Sriramachari (Director, Institute of Pathology, ICMR) influenced me a great deal in my decision. Of course my parents, though initially were concerned and unhappy, later appreciated my decision.

Before leaving the Safdarjang hospital story, I must put down on record that the rich experience of managing neurology services single-handed for seven long years instilled courage and confidence to overcome obstacles in establishing neurology services against all odds and also helped in developing organizational abilities. I had also tasted the sweet experience of success as I had left behind a department equipped with trained medical and technical manpower, added new EEG and EMG equipments and an abundance of goodwill among colleagues in the hospital.

At National Institute of Mental Health and Neuro Sciences, Bangalore (1977 to 2002)

In 1977 I joined NIMHANS as Associate Professor of Neurology when it was at a crucial stage of development. The Institute in 1974 had attained the status of an autonomous institute under the Ministry of Health, Government of India through a novel concept of collaboration and partnership of central and state governments with the agreement to amalgamate the infrastructure and staff of All India Institute of Mental Health and Mental Hospital, under their respective administrative control, and establish an institute to exemplify a multidisciplinary approach to Mental Health and Neuro Sciences with close interaction between clinical and basic sciences. The earlier centre-state divisive forces imposed many constraints and conflicts which went through a major change to create the new vibrant National Institute of Mental Health and Neuro Sciences. The lofty aims, ambitions and goals of the institute made a great impression on me and Dr. RM Varma, the dynamic

director, further infused enthusiasm and made me feel that I was very lucky to work at this prestigious institute. Prof. KS Mani many years later told me that when I was being interviewed for the post of Associate Professor of Neurology, he was waiting outside the committee room for “delivery of the baby”. I fondly hope he was satisfied with the result.

Dr. Mani had interest in epilepsy and had established an active programme in epilepsy including the multicentre PL-480 project under ICMR. Having recognized the need to establish diagnostic facilities for neuromuscular disorders and knowing my interest, he assigned the task of developing the areas of muscle disorders, peripheral neuropathy and electroneuromyography. Although the budget allocation for the year was finalized, a responsive administrator of Government of India, sanctioned additional budget which was adequate to buy DISA 1500 EMG machine and establish the laboratory with facilities for diagnostic services and research. The procedures for muscle and nerve biopsy were also standardized based on my experience during Common Wealth Fellowship and as I felt that neurologists should do the biopsies the neurosurgeons were relieved of this unnecessary burden. Prof. DH Deshpande, Dr. SK Shankar and later Prof. Sarala Das of the department of Neuropathology supported the programme of muscle and nerve disorders and very soon slide sessions exclusively for medical neuropathology with participation of faculty and trainees of both departments were initiated which continue to be very popular with the residents in neurology. NIMHANS is recognized for seminal contributions in the field of neuromuscular disorders.

Training programme for DM in Neurology was started in 1970 with an annual intake of 2 students and after my joining the faculty the seats were increased to 4 in 1977. With the foresight of Dr. Varma

and Dr. Mani to attract the best talent in the country, DM in Neurology was open to postgraduates in MD Medicine or Pediatrics and also to MBBS (the only institute in the country to implement this concept) with duration of course being 3 and 5 years, respectively. There was a further increase in seats to 6 and it is a pride and satisfaction that at my retirement in 2002, more than 100 students were trained as neurologists and many of them have distinguished themselves as good clinical neurologists, teachers and researchers, occupying coveted positions in India and abroad.

I was selected for the post of Professor of Neurology in 1979. A year later I was offered the post of Professor of Neurology at Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST) at Thiruvananthapuram, which I declined with regret, as I was deeply involved in building up the EMG services at NIMHANS and had also initiated a research project "Effect of hyaluronidase in experimental arachnoiditis" funded by Indian Council of Medical Research.

There was a set back when Dr. HV Srinivas and Dr. Mruthujayanayanna left institute but fortunately, very soon it was possible to induct new blood. The clinical services and training programmes got a further boost with increase in the number of residents from 12 in 1979 to 25, providing opportunity for aspiring students to be trained in neurology. Over the years the training program also was transformed to include exposure to neurosurgery, psychiatry, neuropsychology, neuroradiology, neuropathology and basic neurosciences.

The inpatient facilities were enhanced with addition of pediatric neurology, intensive care unit and neurorehabilitation with the strong continuing support of successive directors. Monthly Neuromuscular Disorders Clinic was started in 1991 to provide

comprehensive management including genetic counseling, physiotherapy and yoga for patients with muscular dystrophy and other neuromuscular disorders. Dr. Anisya Vasanth who did her DM thesis on Floppy infant syndrome was very closely associated with the activities of the clinic. Her untimely death at a very young age in 2003 was a tragedy and grieving her loss were the faculty, students and the entire staff of the institute. All these memories flashed in my mind while I was delivering the Dr. Anisya Vasanth Memorial Oration very recently on 17 January 2011.

The new comprehensive block with outpatient, screening clinic and casualty and emergency services came as a boon to patients coming from far and wide. The institute had an excellent outreach program known as 'Satellite clinics' in five centres situated within a radius of 100 km providing neurology and mental health services at monthly outpatient clinics to the people in the rural areas and small towns, with participation of Health department of Karnataka state government and NGOs such as Rotary and Lion's club. The significant impact of this model of delivery of specialized services was widely appreciated and the Government of Karnataka continues to support with regular financial grant to meet the expenditure for free drugs.

The focus of my research work was early detection of nerve damage in leprosy using conduction study of greater auricular nerve and dorsal cutaneous branch of ulnar nerve and therapeutic efficacy of hyaluronidase in spinal arachnoiditis of tuberculous aetiology and also due to non-infective causes such as previous surgery, trauma or disc prolapse. It is gratifying that this method of treatment has been cited in the book 'Brain's Diseases of the Nervous System'. As we started seeing increasing number of young adults with single limb atrophy, efforts were made to delineate and describe the clinical profile of the disorder, which we gave the eponym of

'monomelic amyotrophy'. Dr. TG Suresh and Dr. Shankar were my collaborators in this important work. This entity has also been cited in the book 'Diseases of the Nervous System'. Subsequent studies focused on CT myelography and analytical epidemiology to determine the risk factors associated with MMA with the expertise of Dr. Joga Rao, neuroradiologist and Dr. G Gururaj, Department of Epidemiology, NIMHANS. International Symposium on Motor Neuron Disease in 1984 with participation of a number of experts from India and abroad including Nobel Laureate, Dr. DC Gajdusek was a land mark event. During the next two decades further work on motor neuron disorders was pursued with specific focus on epidemiology, trial of cyclophosphamide as a treatment modality and development of experimental models of amyotrophic lateral sclerosis to study the mechanism of degeneration and evaluate the therapeutic effect of some identified drugs, in collaboration with Professor TR Raju of Department of Neurophysiology of NIMHANS and Dr. Nalini of the Department of Neurology. The sustainability of research in motor neuron disease has been ensured by the commitment of this group.

A major outbreak of Japanese Encephalitis in Karnataka in 1979 got me deeply involved in clinical studies and public health education. After the extension services of NIMHANS were established on a firm footing, neuroepidemiological survey was initiated in 1982 in Gouribidanur (Kolar District), one of the five identified satellite centres, and survey was harmoniously dovetailed with service. This pioneering work attracted international and national attention and it is gratifying that Indian Council of Medical Research identified Neuroepidemiology as a thrust area of research in 1986 and a task force was set up to initiate multicentre studies. NIMHANS was the resource centre for the study and we were asked to develop protocol for survey. A major project

involving survey of more than 100000 population in Bangalore urban and rural areas to determine the prevalence and pattern of a spectrum of neurological disorders, was sanctioned by ICMR with myself as the Principal Investigator. A manual for neuroepidemiological survey in developing countries was developed and a National Workshop on Neuroepidemiology was conducted in 1994 to discuss about feasibility and methodological issues. The increasing demand for the manual led to publication of the second edition in 1997.

The institute initiated the process to establish discipline of molecular genetics, but in the interim period, work in the area of triplet expansion in myotonic dystrophy was done in collaboration with Prof. Brahmachari, Department of Molecular Biology, Indian Institute of Science, Bangalore (presently Director General, Council of Scientific and Industrial Research, New Delhi). Research in muscle disorders continued unabated.

As Director/Vice Chancellor of National Institute of Mental Health and Neuro Sciences (1997–2002)

National Institute of Mental Health and Neuro Sciences became a Deemed University in 1994 under the stewardship of Dr. SM Channabasavanna as the Director/Vice Chancellor and I was appointed as the Dean. To conform to the rules and regulations of University Grants Commission, major changes in administrative and academic and educational structure were made with considerable time and effort. These administrative responsibilities further increased with my appointment as Director /Vice Chancellor of NIMHANS in 1997.

Through a series of measures after collective deliberation and a thorough analysis of the existing situation, keeping in mind the

current developments and envisaging the future perspectives in mental health and neurosciences, thrust areas were identified. To achieve the defined goals, major restructuring with strengthening of infrastructure including computers and connectivity, up gradation and addition of equipments and introduction of cutting edge technology was done. New training programs to create a critical mass of specialists in MPhil Neurosciences, Postdoctoral Fellowship Programs in Neuropathology and Neuroanesthesia, DM in Neuroradiology and enhancement of postgraduate seats in neurology, neurosurgery and psychiatry, strengthening of molecular genetics and molecular neurobiology were some of the important measures to strengthen the academic and research activities. Steps were initiated with Medial Council of India to start DM in Child psychiatry. To strengthen and create specialized clinical facilities, Stroke unit, Advanced Centre for Ayurveda in Mental Health and Neurosciences and Child Psychiatry block were established. Research collaboration with Jawaharlal Nehru Centre for Advanced Research (JNCAR), National Centre for Biological Sciences (NCBS), Tata Institute of Fundamental Research and Defense Bioengineering and Electromedical Laboratory (DEBEL) were facilitated through Memorandum of Understanding.

There was a long felt need of facilities for holding conferences at the institute, hence a state-of-art Convention Centre with adequate seating capacity and excellent infrastructure for audio-visual system was constructed and inaugurated in September 2002 by Dr. AB Maalaka Raddy, Hon'ble Minister of Medical Education, Government of Karnataka. I should record the passionate efforts and commitment of Prof. Ramakrishna, an international expert in acoustics, for his advice and guidance.

With development in all spheres which was possible due to overwhelming and unstinted support of faculty and staff, I retired

from my 'Karma Bhoomi' in November 2002, with supreme satisfaction that NIMHANS is one of the finest institutions for delivery of clinical services, high standard of teaching and training and for conducting research ranging from public health to clinical, molecular and neurobiological aspects in the field of mental health and neurosciences. I am confident that the rich legacy of NIMHANS will be carried forward by the future Directors and the faculty.

Role at National level

It was possible to contribute to the development of neurological sciences in India as Expert member of numerous research organisations of Government of India, to name a few; (i) Programme Advisory Committee in Neurobiology, Department of Science and Technology (DST); (ii) Task Force on Medical Biotechnology, Immudiagnosics, Vaccines and Neurosciences, Department of Biotechnology (DBT); (iii) Medical Sciences Research Committee, Council of Scientific and Industrial Research (CSIR); (iv) Council of the National Academy of Medical Sciences; (v) Advisor for Neurological Research and Chairperson of Core Committee of Neurological Sciences, Indian Council of Medical Research; (vi) Management Council of the Society for Biomedical Technology, Defense Research and Development Organisation (DRDO), Ministry of Defense. As a component of activities of National Neuroscience Information Centre established by Department of Science and Technology at NIMHANS, I took the initiative to develop "Neurology India on CD" covering full text of articles published in the journal 'Neurology India' during 45 years from 1953 to 1997 expending considerable effort in retrieving old issues of the journal. As one of the founding members of the Indian Academy of Neurology and the first Vice President, I played a critical role in the formation and growth of this Society. A new journal, Annals of Indian Academy of Neurology, was launched

by the Indian Academy of Neurology and I had the honour of being the Founding Editor.

Role at International level

I was (i) Vice-Chairperson of “Standards for Neurological Care and Technology Committee”, World Federation of Neurology; and member of a number of academic bodies namely: (ii) World Federation of Neurology Research Committee on Neuroepidemiology; (iii) World Federation of Neurology Research Group on Neuromuscular Diseases; (iv) World Federation of Neurology Research Group on Tropical Neurology; (v) International Federation of Societies for Electroencephalography and Clinical Neurophysiology; (vi) Board on Global Health, Nervous System Disorders in Developing Countries, Institute of Medicine, Washington; (vii) World Health Organisation Expert Advisory Panel on Neurosciences; (viii) Fogarty International Brain Disorder Review Committee, National Institute of Health, USA; (ix) World Health Organisation International Advisory Group for the Revision of ICD -10 Diseases of the Nervous System. Through these various international organisations I was able to reflect the views of Indian neurologists and also facilitate international collaborative research.

Awards, Honours, Distinctions

I am a Fellow of a number of Academic bodies, National Academy of Medical Sciences, Indian Academy of Neurology, Andhra Pradesh Akademi of Sciences and National Academy of Sciences. More than 30 orations in prestigious universities and Academic organisations in India and abroad have been delivered. DSc (Honoris Causa) was conferred by NTR University of Health Sciences, Andhra Pradesh and I was also a recipient of notable

awards, some of them are: (i) Basanti Devi Amir Chand Prize of Indian Council of Medical Research, in recognition of contribution to the field of neurology and neuroepidemiology in 1997; (ii) Om Prakash Bhasin Award by Shri Om Prakash Bhasin Foundation Trust for outstanding contributions in the field of Health and Medical Sciences in 1998; and (iii) Dr. BC Roy Award in the highest category of Eminent Medical Person, Medical Council of India, 2001.

Post Retirement, 2002 onwards

It was a major decision to move from Bangalore to New Delhi due to personal reasons. The appointment as Emeritus Professor of Neurology for life, at the Institute of Human Behaviour and Allied Sciences, by the Government of National Capital Territory (NCT) of Delhi, has given me a unique opportunity to pursue research and teaching. I also have an assignment of a Senior Consultant in neurology at Sir Gang Ram hospital and Chairman of the Department of Clinical Neurophysiology department. As Advisor for Neurological Research and Chairperson of Core Committee of Neurological Sciences, Indian Council of Medical Research, I continue to play an active role in promoting research in Neurological Sciences in the country and the assignments in World Health Organisation and National Institute of Health, USA provide a global platform to address trends and perspective of public health and research issues in the realm of neurological sciences.

As I come to the end of my narrative, with some degree of satisfaction I feel that it has been a purposeful life. Trials and tribulations, which had to be faced to achieve the envisaged goals, hopefully may provide guidance and solace to some young aspiring neurologist.

*You are what your deep, driving desire is.
As your desire is, so is your will.
As your will is, so is your deed.
As your deed is, so is your destiny.*

.....Brihadaranyaka Upanishad IV. 4.5

Acknowledgements

A special debt of gratitude is to Dr. Rajasekharan Nair (editor) for giving permission to use some of the material from my autobiography published in 'Evolution of Neurosciences in India'.





DR. MC MAHESHWARI

President—Neurological Society of India
(2001)

*D*r. MC Maheshwari was born in a village in UP on 19 April 1939. He did his initial education in Saharanpur, UP. He joined King George Medical College, Lucknow in 1956 and completed MBBS in 1961 and MD (Medicine) in 1964. For the next 10 years he worked in clinical neurology and other allied specialities like clinical neurophysiology, neuropathology, spinal injuries and psychiatry in UK and USA. He returned to India in 1976 to settle in Delhi. He joined the Neurology Department at AIIMS as Associate Professor and Head in 1979. He was promoted to Professor and Head in 1984 and retired as Chief of Neurosciences Center and Dean, AIIMS in April 2001. Dr. Maheshwari worked at AIIMS with full zeal and ambition to develop neurology services of excellent quality. With the establishment of Neuroscience Center, the Department of Neurology expanded and faculty were given opportunities to develop subspecialities like stroke, epilepsy, etc. The Department of Clinical Neurophysiology was established with a view to be an example to other centres in India.

Dr. Maheshwari along with his devoted faculty trained MD students of medicine, psychiatry, physiotherapy and also MCh students of neurosurgery in neurology. A few candidates also got

their PhD. However the main aim was to give boost to neurology and this aspect of expansion of neurology throughout India was achieved by taking students for DM in neurology from all parts of India and also from the Armed Forces.

Dr. Maheshwari participated in several national and international symposia, conferences and CME. Against many odds he succeeded in the formation of the Indian Epilepsy Society and got it affiliated to ILAE. He also organized several regional, national and international conferences. The 18th International Epilepsy Congress was organized by him in 1989 and with the money that was saved he created the IEA-18th IEC Trust to fulfill future aspirations of epilepsy movement in India. He supported and worked hard for the development of Asian Oceanian Epilepsy Association (AOEA) in India and the second AOEa conference was held successfully in New Delhi. Dr. Maheshwari succeeded in holding a discussion on epilepsy in the scientific session of the SAARC countries.

Dr. Maheshwari abstracted all the papers published in the journal of Neurology (India) in the first 35 years in two volumes. He has published 257 papers in national and international journals besides some chapters in books. He has also brought out informative booklets on epilepsy, headache and stroke, published by National Book Trust of India.

He was awarded Padmashri by Govt. of India in 2001.

Dr. Maheshwari is married to Dr. Shashi. They have two children—a daughter, Dr. Anupama Rastogi and a son, Dr. Kaushik Maheshwari.

Dr. Maheshwari is currently a Senior Consultant Neurologist at VIMHANS Hospital, New Delhi.



OTHER INFORMATION

Table 1: Fellows

Founding Fellows (as approved by EC and GB in September 1995 and awarded FIAN in 1996)

- | | |
|-----------------------------|------------------------------|
| 1. Dr. T.K. Ghosh | 19. Dr. K. Rajasekharan Nair |
| 2. Dr. E.P. Bharucha | 20. Dr. C.U. Velmurugendran |
| 3. Dr. N.H. Wadia | 21. Dr. P.M. Dalal |
| 4. Dr. Anil D. Desai | 22. Dr. Zaheer Ahmed Sayeed |
| 5. Dr. Baldev Singh | 23. Dr. Satyanarayana |
| 6. Dr. K.S. Mani | 24. Dr. J.M.K. Murthy |
| 7. Dr. G. Arjundas | 25. Dr. N.N. Sarangi |
| 8. Dr. Vimala Virmani | 26. Dr. R.S. Wadia |
| 9. Dr. K. Jagannathan | 27. Dr. Devika Nag |
| 10. Dr. S. Janaki | 28. Dr. B.C. Katiyar |
| 11. Dr. M. Veeraghava Reddy | 29. Dr. K.K. Sinha |
| 12. Dr. B.S. Singhal | 30. Dr. Meena Gupta |
| 13. Dr. Shyamal Kumar Sen | 31. Dr. M.C. Maheshwari |
| 14. Dr. K. Srinivasan | 32. Dr. G.K. Ahuja |
| 15. Dr. M. Gourie-Devi | 33. Dr. P.K. Sethi |
| 16. Dr. K. Srinivas | 34. Dr. M.L. Suri |
| 17. Dr. J.S. Chopra | 35. Dr. S. Venkataraman |
| 18. Dr. Anupam Das Gupta | 36. Dr. S. Prabhakar |



Fellows elected thereafter

1996

37. Dr. S.M. Katrak
38. Dr. D. Nagaraja

39. Dr. Pravina Shah

1997

40. Dr. H.V. Srinivas
41. Dr. V.S. Achar
42. Dr. Ambar Chakravarty

43. Dr. Madhuri Behari
44. Dr. I.M.S. Sawhney

1998

45. Dr. S. Mohandas
46. Dr. R. Sridharan

47. Dr. P. Satishchandra

2001

48. Dr. Arun B. Taly

49. Dr. U.K. Mishra

2002

50. Dr. (Col) R.M. Dhamija

2004

51. Dr. M.M. Mehndiratta

52. P.V.S. Rana

2005

53. Dr. A. V. Srinivasan

2006

54. Dr. Rakesh Shukla

2007

55. Dr. A.K. Roy

56. Dr. Chandran Gnanamuthu

2010

57. Dr. Sanjeev V. Thomas



Table 2: Office bearers

Year	President	Secretary	Treasurer
1991-1993 (Adhoc Com)	Dr. Krishnamoorthy Srinivas	Dr. J.S. Chopra	Dr. S. Prabhakar
1993-1994	Dr J.S. Chopra	Dr. C.U. Velmurugendran	Dr. S. Prabhakar
1994-1995	Dr. Anupam Das Gupta	Dr. C.U. Velmurugendran	Dr. S. Prabhakar
1995-1996	Dr. K. Rajasekharan Nair	Dr. C.U. Velmurugendran	Dr. S. Prabhakar
1996-1997	Dr. Zaheer Ahmed Sayeed	Dr. D. Nagaraja	Dr. S. Prabhakar
1997-1998	Dr. C.U. Velmurugendran	Dr. D. Nagaraja	Dr. S. Prabhakar
1998-1999	Dr. G.K. Ahuja	Dr. D. Nagaraja	Dr. S. Prabhakar
1999-2000	Dr. Devika Nag	Dr. S. Prabhakar	Dr. J.M.K. Murthy
2000-2001	Dr. D. Nagaraja	Dr. S. Prabhakar	Dr. J.M.K. Murthy
2001-2002	Dr. S. Venkataraman	Dr. S. Prabhakar	Dr. J.M.K. Murthy
2002-2003	–	Dr. M.M. Mehndiratta	Dr. P. Satishchandra
2003-2004	Dr. S. Prabhakar	Dr. M.M. Mehndiratta	Dr. P. Satishchandra
2004-2005	Dr. S.M. Katrak	Dr. M.M. Mehndiratta	Dr. P. Satishchandra
2005-2006	Dr. Ambar Chakravarty	Dr. M.M. Mehndiratta	Dr. P. Satishchandra
2006-2007	Dr. R.S. Wadia	Dr. M.M. Mehndiratta	Dr. P. Satishchandra
2007-2008	Dr. Madhuri Behari	Dr. M.M. Mehndiratta	Dr. P. Satishchandra
2008-2009	Dr. H.V. Srinivas	Dr. C.M. Meshram	Dr. Pramod Kr. Pal
2009-2010	Dr. K. Radhakrishnan	Dr. C.M. Meshram	Dr. Pramod Kr. Pal
2010-2011	Dr. Ashok Panagariya	Dr. C.M. Meshram	Dr. Pramod Kr. Pal

Table 3: Annual Conferences

Conference	Year	Venue	Organizing Secretary
1st IANCON Under Adhoc Executive Committee	1993	Ranchi	Dr. K.K. Sinha
2nd IANCON	1994	New Delhi	Dr. Amitabh Verma
3rd IANCON	1995	Chandigarh	Dr. S. Prabhakar
4th IANCON	1996	Bangalore	Dr. D. Nagaraja
5th IANCON	1997	Chennai	Dr. C.U. Velmurugendran
6th IANCON	1998	Hyderabad	Dr. S. Mohandas
7th IANCON	1999	Kolkata	Dr. Trishit Roy
8th IANCON	2000	Madurai	Dr. D. Ramasubramaniam
9th IANCON	2001	New Delhi	Dr. Vinod Puri
10th IANCON	2002	Lucknow	Dr. A.M. Kar
11th IANCON	2003	Visakhapatnam	Dr. K. Venkateswarulu
12th IANCON	2004	Nagpur	Dr. Chandrashekhar Meshram
13th IANCON	2005	Jaipur	Dr. Ashok Panagariya
14th IANCON	2006	Bangalore	Dr. P. Satishchandra
15th IANCON	2007	Mumbai	Dr. Nirmal Surya
16th IANCON	2008	New Delhi	Dr. M.M. Mehndiratta
17th IANCON	2009	Cochin	Dr. Mathew Abraham
18th IANCON	2010	Trichy	Dr. M. A. Aleem
19th IANCON	2011	Pune	Dr. Sudhir Kothari

Table 4: Orations at Annual Conferences

Year & Venue	Oration	Theme and Orator
1994 New Delhi	Presidential Baldev Singh	Peripheral neuropathy - Dr. J.S. Chopra Prof. Donald HI Silberburg
1995 Chandigarh	Baldev Singh J.S. Chopra Das Gupta	Exploring Indian neurology - Dr. N.H. Wadia From Ramayana to suprachiasmatic nucleus - Dr. David Parkes Epilepsy in India - retrospect and prospect - Dr. Pravina Shah
1996 Bangalore	Presidential	The travails of an Indian neurologist - K. Rajasekharan Nair
1997 Chennai	Presidential Baldev Singh J.S. Chopra Das Gupta	Myasthenia gravis - past, present and future - Dr. Zaheer Ahmed Sayeed Dr. P.P. Dey Deyn To move or not to move? that is the question - Dr. M J Aminoff Biology of thrombus in thrombolysis - Dr. P.M. Dalal
1998 Hyderabad	Presidential IAN Baldev Singh	Organization of cognitive functions in the brain - Dr. C.U. Velmurugendran Genetics - Dr. Lalji Singh Leprous neuropathy - Assessment of nerve damage by special electrophysiologic techniques and teased single nerve fiber studies - Dr. M. Gourie-Devi
1999 Kolkata	Presidential	Myasthenia gravis - is the disease confined to neuromuscular junction - Dr. G.K. Ahuja

2000 Madurai	Presidential IAN	Clinical neurotoxic disorders: Past, present and future - Dr. Devika Nag His Excellency Dr. A.P.J. Abdul Kalam
2001 New Delhi	Presidential IAN Baldev Singh	In the footprints of stroke in the young - Dr. D. Nagaraja Dr. Seyed Ehtesham Hasnain Dr. P. Murali Doraiswamy
2002 Lucknow	Presidential IAN Das Gupta	Contribution of armed forces to neurosciences in India - Dr. S. Venkataraman Environmental chemicals and developing brain - Dr. P.K. Sethi Comprehensive epilepsy care - Dr. K. Radhakrishnan
2003 Visakhapatnam	IAN J.S. Chopra	Investigations for aetiopathologic agents for viral encephalitis epidemic-an approach in developing countries-Dr. N.K. Ganguli Perception of vision - Dr. S.M. Katrak
2004 Nagpur	Presidential IAN Baldev Singh N.H. Wadia	Impact of molecular diagnosis in neurology. From clinical to translational research - Dr. S. Prabhakar Antibody-mediated ion channelopathies - Dr. John Newsom Davis Mind, brain and music - Dr. K. Srinivas Cerebellar infarction - Dr. Louis R Caplan

<p>2005 Jaipur</p>	<p>Presidential IAN Das Gupta B.S. Singhal</p>	<p>The origin of HIV and AIDS: and enigma of evolution - Dr. S.M. Katrak Spinocerebellar ataxia (SCA -12) is typically an Indian disease - Dr. K.K. Sinha Clinical and electrodiagnostic assessment of facial weakness - Prof. Jun Kimura Cerebral venous thrombosis —30 years later - Dr. Marie Germaine Bousser</p>
<p>2006 Bangalore</p>	<p>Presidential IAN J.S. Chopra N.H. Wadia</p>	<p>My tryst with women in neurology - Dr. Ambar Chakravarty Trigeminal autonomic cephalgias, cluster headache and related disorders - Dr. Peter G Goadsby Stroke care experience and clinical research in stroke units in Chennai - Dr. G. Arjundas Neuromuscular ion channelopathies - Dr. Robert C Griggs</p>
<p>2007 Mumbai</p>	<p>Presidential IAN Baldev Singh B.S. Singhal</p>	<p>A neurotropic virus (Chikungunya) and neuropathic aminoacid (homocysteine) - Dr. R.S. Wadia Emerging encephalites in India - Dr. A.C. Mishra Auto antibodies in neuromuscular transmission disorders - Dr. Angela Vincent Primary progressive MS-MRI insight into the nature of progression - Dr. Alan Thompson</p>

<p>2008 New Delhi</p>	<p>Presidential IAN J.S. Chopra N.H. Wadia</p>	<p>Shuffling along and more - Dr. Madhuri Behari End of life care in severe acute stroke - Dr. Amado San Luis Should everyone do research - Dr. Vladimir Hachinski World Federation of Neurology at crossroads-Dr. Johan A Aarli</p>
<p>2009 Cochin</p>	<p>Presidential IAN Das Gupta B.S. Singhal</p>	<p>Epilepsy – The future scenario - Dr. H.V. Srinivas Refractory epilepsies of childhood: who are the surgical candidates? - Dr. Harry Chugani Neural regeneration with stem cells - rebooting the brain - Dr. Alok Srivastava Progress in the pathogenesis and treatment of Parkinson's disease - Dr. Yoshikumi Mizuno</p>
<p>2010 Trichy</p>	<p>Presidential IAN Das Gupta</p>	<p>Challenges in management of epilepsy in developing countries - Prof. K. Radhakrishnan A new look at the treatment of multiple sclerosis - Prof. Rammohan Kottai Spinocerebellar ataxias: genes, models, treatments - Prof. Stefan Pulst</p>

**EXECUTIVE COMMITTEE
2009-2010**

PRESIDENT	Dr. K. Radhakrishnan
PRESIDENT ELECT	Dr. Ashok Panagariya
PAST PRESIDENT	Dr. Madhuri Behari
	Dr. H.V. Srinivas
SECRETARY	Dr. C.M. Meshram
TREASURER	Dr. Pramod Kumar Pal
EDITOR	Dr. Sanjeev V. Thomas
EXECUTIVE MEMBERS	Dr. Nadir Bharucha
	Dr. Subhash Kaul
	Dr. Rakesh Shukla

**EXECUTIVE COMMITTEE
2008-2009**

PRESIDENT	Dr. H. V. Srinivas
PRESIDENT ELECT	Dr. K. Radhakrishnan
PAST PRESIDENT	Dr. R.S.Wadia
	Dr. Madhuri Behari
SECRETARY	Dr. C.M. Meshram
TREASURER	Dr. Pramod Kumar Pal
EDITOR	Dr. Sanjeev V. Thomas
EXECUTIVE MEMBERS	Dr. Nadir Bharucha
	Dr. Subhash Kaul
	Dr. Ashok Panagariya
	Dr. Rakesh Shukla

**EXECUTIVE COMMITTEE
2007-2008**

PRESIDENT	Dr. Madhuri Behari
VICE PRESIDENT	Dr. H. V. Srinivas
PAST PRESIDENT	Dr. Ambar Chakravarty
	Dr. R.S.Wadia
SECRETARY	Dr. M. M. Mehndiratta
TREASURER	Dr. P. Satishchandra
EDITOR	Dr. Sanjeev V. Thomas
EXECUTIVE MEMBERS	Dr. Arabinda Mukherjee
	Dr. Ashok Panagariya
	Dr. C. M. Meshram
	Dr. Rakesh Shukla

**EXECUTIVE COMMITTEE
2006-2007**

PRESIDENT	Dr. R.S.Wadia
VICE PRESIDENT	Dr. Madhuri Behari
PAST PRESIDENT	Dr. S. M. Katrak
	Dr. Ambar Chakravarty
SECRETARY	Dr. M. M. Mehndiratta
TREASURER	Dr. P. Satishchandra
EDITOR	Dr. Sanjeev V. Thomas
EXECUTIVE MEMBERS	Dr. Arabinda Mukherjee
	Dr. Ashok Panagariya
	Dr. C. M. Meshram
	Dr. Rakesh Shukla

**EXECUTIVE COMMITTEE
2005-2006**

PRESIDENT	Dr. Ambar Chakravarty
VICE PRESIDENT	Dr. R.S. Wadia
PAST PRESIDENT	Dr. S. Prabhakar
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SECRETARY	Dr. M. M. Mehndiratta
TREASURER	Dr. P. Satishchandra
EDITOR	Dr. Sanjeev V. Thomas
EXECUTIVE MEMBERS	Dr. Arabinda Mukherjee
	Dr. Ashok Panagariya
	Dr. C. M. Meshram

**EXECUTIVE COMMITTEE
2004-2005**

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VICE PRESIDENT	Dr. Ambar Chakravarty
PAST PRESIDENT	Dr. S. Venkataraman
	Dr. S. Prabhakar
SECRETARY	Dr. M. M. Mehndiratta
TREASURER	Dr. P. Satishchandra
EDITOR	Dr. D. Nagaraja
EXECUTIVE MEMBERS	Dr. H. V. Srinivas
	Dr. Arabinda Mukherjee
	Dr. Shailendra Jain
	Dr. M. A. Aleem

**EXECUTIVE COMMITTEE
2003-2004**

PRESIDENT	Dr. S. Prabhakar
VICE PRESIDENT	Dr. S. M. Katrak
PAST PRESIDENT	Dr. D. Nagaraja
	Dr. S. Venkataraman
SECRETARY	Dr. M. M. Mehndiratta
TREASURER	Dr. P. Satishchandra
EDITOR	Dr. D. Nagaraja
EXECUTIVE MEMBERS	Dr. H. V. Srinivas
	Dr. Arabinda Mukherjee
	Dr. Shailendra Jain
	Dr. M. A. Aleem

**EXECUTIVE COMMITTEE
2002-2003**

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PAST PRESIDENT	Dr. D. Nagaraja
	Dr. S. Venkataraman
SECRETARY	Dr. M. M. Mehndiratta
TREASURER	Dr. P. Satishchandra
EDITOR	Dr. D. Nagaraja
EXECUTIVE MEMBERS	Dr. H. V. Srinivas
	Dr. Arabinda Mukherjee
	Dr. Shailendra Jain
	Dr. M. A. Aleem

**EXECUTIVE COMMITTEE
2001–2002**

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VICE PRESIDENT	Dr. M. C. Maheshwari
PAST PRESIDENT	Dr. Devika Nag
	Dr. D. Nagaraja
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EDITOR	Dr. M. Gourie-Devi
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	Dr. Ambar Chakravarty
	Dr. M. M. Mehndiratta
	Dr. S. M. Katrak

**EXECUTIVE COMMITTEE
2000–2001**

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VICE PRESIDENT	Dr. S. Venkataraman
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SECRETARY	Dr. S. Prabhakar
TREASURER	Dr. J.M.K. Murthy
EDITOR	Dr. M. Gourie-Devi
EXECUTIVE MEMBERS	Dr. A. B. Taly
	Dr. Ambar Chakravarty
	Dr. M. M. Mehndiratta
	Dr. S. M. Katrak

**EXECUTIVE COMMITTEE
1999–2000**

PRESIDENT	Dr. Devika Nag
VICE PRESIDENT	Dr. D. Nagaraja
PAST PRESIDENT	Dr. G. K. Ahuja
	Dr. C. U. Velmurugendran
SECRETARY	Dr. S. Prabhakar
TREASURER	Dr. J.M.K. Murthy
EDITOR	Dr. M. Gourie-Devi
EXECUTIVE MEMBERS	Dr. A. B. Taly
	Dr. M. M. Mehndiratta

**EXECUTIVE COMMITTEE
1998–1999**

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VICE PRESIDENT	Dr. Devika Nag
PAST PRESIDENT	Dr. Zaheer Ahmed Sayeed
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TREASURER	Dr. S. Prabhakar
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EXECUTIVE MEMBERS	Dr. S. Venkataraman
	Dr. Ambar Chakravarty
	Dr. R.S. Wadia
	Dr P. Satishchandra

**EXECUTIVE COMMITTEE
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VICE PRESIDENT	Dr. G. K. Ahuja
PAST PRESIDENT	Dr. Zaheer Ahmed Sayeed
	Dr. K. Rajasekharan Nair
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TREASURER	Dr. S. Prabhakar
EDITOR	Dr. M. Gourie-Devi
EXECUTIVE MEMBERS	Dr. P. Satishchandra
	Dr. S. Venkataraman
	Dr. R. S. Wadia
	Dr. Ambar Chakravarty

**EXECUTIVE COMMITTEE
1996–1997**

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VICE PRESIDENT	Dr. C. U. Velmurugendran
SECRETARY	Dr. D. Nagaraja
PAST PRESIDENT	Dr. Rajasekharan Nair
TREASURER	Dr. S. Prabhakar
EDITOR	Dr. M. Gourie-Devi
EXECUTIVE MEMBERS	Dr. S. Venkataraman
	Dr. R. S. Wadia
	Dr. Ambar Chakravarty
	Dr. P. Satishchandra

EXECUTIVE COMMITTEE
1995–1996

PRESIDENT	Dr. Rajasekharan Nair
VICE PRESIDENT	Dr. Zaheer Ahmed Sayeed
PAST PRESIDENT	Dr. J. S. Chopra
	Dr. Anupam Das Gupta
SECRETARY	Dr. C. U. Velmurugendran
TREASURER	Dr. S. Prabhakar
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EXECUTIVE MEMBERS	Dr. K.K. Sinha
	Dr. A. V. Srinivasan
	Dr. S. Venkataraman
	Dr. R. S. Wadia

EXECUTIVE COMMITTEE
1994–1995

PRESIDENT	Dr. Anupam Das Gupta
VICE PRESIDENT	Dr. K. Rajasekharan Nair
PAST PRESIDENT	Dr. J. S. Chopra
SECRETARY	Dr. C.U. Velmurugendran
TREASURER	Dr. S. Prabhakar
EDITOR	Dr. M. Gourie-Devi
EXECUTIVE MEMBERS	Dr. M. M. Mehndiratta
	Dr. J.M.K. Murthy
	Dr. K. K. Sinha
	Dr. A. V. Srinivasan
	Dr. S. Venkataraman
	Dr. R. S. Wadia

EXECUTIVE COMMITTEE
1993–1994

PRESIDENT	Dr. J. S. Chopra
VICE PRESIDENT	Dr. Anupam Das Gupta
SECRETARY	Dr. C.U. Velmurugendran
TREASURER	Dr. S. Prabhakar
EXECUTIVE MEMBERS	Dr. M.M. Mehndiratta
	Dr. J.M.K. Murthy
	Dr. K.K. Sinha
	Dr. A.V. Srinivasan
	Dr. S. Venkataraman
	Dr. R.S. Wadia

WORKING COMMITTEE
1992–1993

PRESIDENT	Dr. Krishnamoorthy Srinivas
VICE PRESIDENT	Dr. M. Gourie-Devi
SECRETARY	Dr. J. S. Chopra
TREASURER	Dr. S. Prabhakar
EXECUTIVE MEMBERS	Dr. N. C. Borah
	Dr. S. M. Katrak
	Dr. M. C. Maheshwari
	Dr. Devika Nag
	Dr. N. N. Sarangi
	Dr. Z.A. Sayeed
	Dr. N. Mehta Shah
	Dr. S. Venkataraman