

Letter from Mumbai

FOSTERING MEDICAL RESEARCH

We read and hear so much that is dispiriting and enervating during our daily routines. Inefficiency, corruption, nepotism, deteriorating standards and general decay appear to be the order of the day. Fortunately, there are antidotes.

I was lucky in being able to spend time at the National Institute of Mental Health and Neurological Sciences (NIMHANS) in Bengaluru recently. During this period I was able to interact with some of its young researchers and came away full of admiration and hope. This and other experiences convinced me that all is not lost. If we can preserve and extend the islands of excellence that prevail despite negative influences, the phrase *India shining* may still remain relevant.

Let me start by telling you about the researchers. Lecturers and assistant professors in various departments including biophysics, clinical psychology, neurochemistry, neurophysiology and psychiatry are deeply involved in cutting-edge research. I am purposely not including neurology, neurovirology and such departments, which are generally well-known for their researches. I was struck by the fact that the neurophysiology department, for example, studies glial responses in amyotrophic lateral sclerosis, evaluation of antiepileptic activity of medicinal plants in animal models of epilepsy and aberrant neural synchrony in schizophrenia. The department of psychiatry studies such topics as the neuroimmunogenic and functional magnetic resonance imaging (fMRI) correlates of smooth pursuit eye movements and telomere length in dementias. Other departments too effortlessly cross the artificial boundaries that subdivide the neurosciences.

I witnessed a slide-show on the work done by Drs Janardhan and Venkatasubramanian on the use of simple, percutaneous, transcranial direct current stimulation to help schizophrenic patients overcome unwelcome thoughts. The results are dramatic as the lives of these patients are changed for the better. The researchers are in the process of developing inexpensive stimulators, which the patient can use at home after some training in the institute.

Such studies have been made possible by the encouragement and support these young experts get from their immediate seniors—professors in the departments in which they work—and also thanks to the provision by the institute administrators of everything they need in terms of equipment, software, isotopes, other chemicals and ancillaries.

As they recounted their studies and findings, these young PhD scholars bubbled with enthusiasm. When they narrated instances of how well their work was appreciated at international meetings, seminars and conferences, I could sense pride and self-respect born of genuine achievement.

The studies in progress have multiple goals—the advancement of knowledge on the topic, better understanding of diseases affecting our patients, improving diagnostic techniques and making treatment more effective. The focus of several clinical and laboratory projects is on Indian diseases. Improving the lot of the poor and those living in villages and small towns is an important concern. All attempts are made to develop simpler, less expensive measures that can be taken to these villages and towns to help patients avoid expensive and time-consuming trips to large cities such as Bengaluru.

The proof of the pudding is in the eating. The *Annual Report 2013–2014* released by NIMHANS earlier this year carries a

section entitled 'Research activities'. It occupies pages 106 to 199 and carries summary reports on the important research projects during the year. The projects described are grouped by discipline, starting with Biophysics and ending with Ayurveda. Interspersed in the text are a variety of illustrations ranging from sophisticated microphotographs and depictions of molecular structures to fMRIs and confocal laser scanning images.

The next section deals with 'Publications' (pp. 200–37). These are grouped under those in international journals; national journals; chapters in books, conference proceedings, monographs and manuals and essays in lay publications. A separate section lists 16 books published by staff members. Bibliographic details are provided in each entry.

Presentations at international and national conferences are listed separately.

At the end of my stay, my chief regret was that I was able to learn details on research projects in just three departments.

THE HISTORY OF MEDICINE AS STUDIED IN BENGALURU

Two institutional endeavours evoked envy. The first was in NIMHANS itself.

The NIMHANS History Museum

Professor Sanjeev Jain (of the Department of Psychiatry) and his team have set up a museum depicting the development of NIMHANS from a Lunatic Asylum set up in 1850 to its nomination as an autonomous institute of national importance. Celebrating 160 years of development, it uses panels with texts, photographs and illustrations; historic equipment salvaged from departments, and the personal collections of retired professors, portraits of past professors; high-quality reproductions of case records from 1850 onwards and portraits of others who have contributed to the continuing effort for patient care, education and research in the neurosciences.

The museum is housed in what was once the Children's Pavilion of the Mysore Government Mental Hospital.

The first floor of this building will eventually house an interactive museum explaining the relationship between the brain and behaviour. It is intended to ensure participation by lay visitors through an interactive format.

Dr Sanjeev Jain is also working on the preparation of a comprehensive history of psychiatry in India. Towards this end, he and his colleagues are collecting material from various Indian centres and from repositories such as the British Library and the Wellcome institute in London.

History and medical humanities at St John's Research Institute

The second endeavour I was enabled to study is the creation of the Division of Health and Humanities at St John's Research Institute. An affiliate of St John's National Academy of Health Sciences and housed in the same campus, this division occupies a separate new building.

The ground floor houses the museum of the academy. Pope John XXIII agreed to naming the proposed medical college being set up in 1960 after his patron, St John the Baptist. While the present buildings housing the medical college and hospital were being constructed, the college was located in St Martha's Hospital

run by the Sisters of the Good Shepherd Congregation. In June 1968, the college moved to its present campus over 140 acres. Should you be fortunate—as I was—in being guided by Dr Mario Vaz, the historian-professor of physiology, you will spend a considerable amount of time in this section itself, marvelling at the guiding spirits that made and developed these institutions.

Dr Vaz's love and enthusiasm for medical history are contagious.

The History of Medicine Museum, associated with the name of its patron, General Sohan Lal Bhatia, occupies the first floor. Photographs depicting the life and work of this illustrious and much-admired officer of the Indian Medical Services are prominently displayed. His collected papers are housed in several boxes and are made available to researchers on request. I have a special reason for learning more about Dr Bhatia. He was professor of physiology and the first Indian to be appointed Dean of my own *alma mater*—the Grant Medical College.

Illustrated panels depict various aspects of the history of medicine. Books on the subject are to be found in cupboards and as special exhibits scattered throughout the floor.

The section on medical humanities and the seminar hall occupy the second floor.

As I stated at the start of this account, I had to take pains to keep the green-ey'd monster (Shakespeare, *Othello* Act 3, scene 3, 166) at arms length as I spent hours in these institutions.

When, oh! when, will Mumbai awaken to the need for such institutions?

THE IMPERMANENCE OF MEDICAL ENDEAVOURS IN INDIA

While admiring the exhibits at the two museums referred to above, I was reminded of a visit to the museum of the history of medicine at the All India Institute of Medical Sciences (AIIMS) in New Delhi when Dr N.H. Keswani was Professor of Anatomy and Professor of the History of Medicine.

I was then working at Dr Keswani's *alma mater*, Seth Gordhandas Sunderdas Medical College (GSMC) and King Edward VII Memorial Hospital in Mumbai. I was therefore given a royal welcome and conducted around the museum by Dr Keswani himself.

He was an extrovert and delighted in narrating anecdotes of his teachers and colleagues and of the days when he was the General Secretary at GSMC. I found his museum enlightening and very informative. He had taken special care to highlight Indian contributions to medicine and surgery.

Dr Keswani moved out of AIIMS and eventually made his way to his final home in White Bear Lake, Minnesota, USA. (The curious reader will find a delightful account of this town in Mark Twain's *Life on the Mississippi*.)

During my subsequent visits to AIIMS, I witnessed the gradual disappearance of the museum so lovingly created by Dr Keswani.

To the best of my knowledge, there is no trace of his collections in the institute today.

We have been witness to a recent similar loss in Mumbai. Dr Darab K. Dastur was the first person to set up a department of neuropathology in Bombay (now Mumbai). Working under the guidance of Dr Vasant Ramji Khanolkar at the Tata Memorial Hospital and Cancer Research Centre in Parel, he started work on the damage wrought by leprosy on nerves. Visiting the National Institutes of Health at Bethesda, Maryland, USA as a Rockefeller Fellow, he developed a keen interest in diseases of the brain. On his return to Bombay, Dr C.G.S. Iyer and he set up the Indian Council of Medical Research (ICMR) Neuropathology Unit at Tata Memorial. Dr Dastur later moved this unit, lock, stock and barrel to the Grant Medical College. With Drs Noshir H. Wadia, Gajendra Sinh, R.G. Ginde and P.M. Udani as collaborators, he carried out a series of classic studies and amassed an enviable collection of neuropathological specimens and slides. His meticulous records evoked universal admiration. Eventually he moved to the Bombay Hospital where he ended his career. Interested readers will learn more on him from Dr Daya Manghani's obituary published in this journal (*Natl Med J India* 2000;13:96).

The specimens, slides and records so assiduously collected by him have, alas, gone the way of all the earth (Bible, I Kings 2:2; Joshua 22:14) and a student of the history of neuropathology in Mumbai will be hard put to gather even a semblance of his heritage together.

I am also dismayed by the lack of awareness of and enthusiasm for classic contributions made by our pioneer neuroscientists. Currently published papers in the neurosciences seldom make detailed references to the papers published by Drs V.R. Khanolkar, Jacob Chandy, B. Ramamurthi, Ram Ginde, Baldev Singh, B.K. Anand and their contemporaries. The passage of time may also erase memories of the contributions by Drs Noshir Wadia, Darab K. Dastur, Prakash N. Tandon, Homi M. Dastur, Gajendra Sinh, B. Dayananda Rao, M. Natarajan, S. Kalyanaraman and others.

As examiners for the MCh (Neurosurgery) and DM (Neurology) are well aware, questions during the *viva voce* pertaining to the founders of the department in which the examination is being held commonly elicit blank looks.

Are we as a nation condemned to amnesia of our pioneers, past achievements, struggles in setting up departments and institutes? Will succeeding generations of students remain deprived of sources of inspiration and the examples of individuals who can profitably serve as role models?

This *Journal* is making an attempt at remedying the situation by reproducing classic contributions in medicine from India with notes on the researcher and an update on the information in the paper published decades earlier.

Our readers may have other, effective suggestions on how we can continue to learn from our pioneers and eminent past teachers.

SUNIL PANDYA