News from here and there

Education in government medical colleges:
A dream turning sour?

As the state of Andhra Pradesh gears up for admissions to the MB,BS course for the academic year 2007-08, the ambitions of several aspirants were dampened by the news that the state has lost 275 MB,BS seats in government medical colleges. According to the listing at the website of the Medical Council of India (MCI; www.mciindia.org/apps/search/show_colleges.asp, accessed on 10 April 2007), the MCI has de-recognized all 100 seats in the Government Medical College, Anantapur, all 125 seats in Guntur Medical College, Guntur, and did not recommend the increase of seats from 100 to 150 for the Sri Venkateswara Medical College, Tirupati. Guntur Medical College was started in 1946 and celebrated its Diamond Jubilee in February 2007. Government Medical College, Anantapur was the first new government medical college in 40 years in Andhra Pradesh. Junior doctors of this college recently launched an indefinite agitation demanding facilities for getting recognition from the MCI. Three batches of 40, 70 and 40 students had already completed their course at the college but their degrees were yet to be recognized by the MCI, due to lack of infrastructure. Interestingly, increase of seats from 100 to 150 was recommended for 2 private medical colleges in the state.

Lack of infrastructural facilities and shortage of teaching staff as per the MCI norms are cited as reasons for the de-recognition. The issue of shortage of teaching staff in medical colleges in Andhra Pradesh has been discussed earlier in these pages (Natl Med J India 2006;19:115). In Andhra Pradesh, the shortage of staff is more acute in the basic sciences and in specialties such as Radiodiagnosis, General Medicine and General Surgery. Many young specialists prefer subspecialization and then opt for the corporate sector/private practice or join private medical colleges. Even those who stay in teaching hospitals prefer to pursue subspecialization (DM/MCh degree) as the promotional avenues are far more attractive. As per the present MCI norms (www.mciindia.org/know/rules/teachers.htm, accessed on 10 April 2007), leaving aside the desirable publications required, a subspecialist with a DM/MCh qualification joins service as an Assistant Professor; with 2 years of experience as an Assistant Professor, becomes an Associate Professor; and after 4 years as an Associate Professor, becomes a Professor. In contrast, a specialist (with MD/MS degree) joins as an Assistant Professor after 3 years of teaching experience as a Lecturer; after 5 years as Assistant Professor, becomes an Associate Professor; and after 4 years as Associate Professor, becomes a Professor. Since the period of training in the DM/MCh programme is 3 years, which is equivalent to the time spent by the specialist as a Lecturer, both the specialist and subspecialist join at more or less the same age as Assistant Professors; the subspecialist rises to be a Professor in 6 years while the specialist requires 9 years to become a Professor. While 3 years of teaching experience in a private medical college as a Lecturer is counted as teaching experience, sadly, 3 years of teaching experience as a senior resident in the central institutes such as the All India Institute of Medical Sciences and Postgraduate Institute of Medical Education and Research is not counted as teaching experience for promotion to Assistant Professor as per these norms.

With barely adequate monetary benefits, and a longer ride to the top cadre of a Professor’s post, it is small wonder that few youngsters want to stay back as teaching faculty in the general specialties. Major reforms are required to attract and retain teaching faculty, especially in government medical colleges, which have traditionally turned out the best of students.

ALLADI MOHAN, Tirupati, Andhra Pradesh

A new class of drugs against chloroquine-resistant malaria

Scientists in Toronto have synthesized a chemical compound that can bind itself to the malaria enzyme, orotidine 5’-monophosphate decarboxylase (ODCase) and prevent the parasite from reproducing and surviving. ODCase has been a target of interest for drug development researchers due to its critical role in the de novo synthesis of pyrimidine nucleotides, which are needed for DNA synthesis. Most studies targeting ODCase have focused on malaria and cancer. However, until now the development of inhibitor candidates has been limited due to their lack of specificity.

As part of their investigations on ODCase, the Toronto researchers synthesized the molecule 6-iodo-UMP and investigated its interactions with the enzyme. The compound was designed with a multidisciplinary approach using X-ray crystallography, computer modelling and medicinal chemistry at the Centre for Molecular Design and Preformulations. Several strains of human malaria, including multidrug resistant strains of *Plasmodium falciparum* that cause malignant malaria, were tested. The inhibitor 6-iodo-UMP and its parent nucleoside analogue, 6-iodouridine were found to have potent *in vitro* antiparasitic activities against *P. falciparum*. ODCase 6-iodouridine was also found to inhibit a chloroquine-resistant isolate of *P. falciparum*.

This is the first time that scientists have been able to affect the malarial parasite with a novel drug that specifically targets the ODCase enzyme. Their work paves the way for the design of a new class of unique and highly selective small molecule that can potentially target the malarial parasite and kill it. This discovery has important implications for the development of targeted anti-malarial drug therapy.

The study was conducted by lead author Dr Lakshmi Kotra (Co-Director, Centre for Molecular Design and Preformulations, Scientist, Division of Cellular and Molecular Biology, Toronto General Research Institute and Assistant Professor of Chemistry and Pharmacy at the University of Toronto), Professor Emil Pai (Ontario Cancer Institute, Department of Biochemistry, University of Toronto), Dr Kevin Kain (Director, McLaughlin-Rotman Centre for Global Health) and other researchers at University Health Network and the University of Toronto. The results of the study entitled, ‘A potent, covalent inhibitor of orotidine 5’-monophosphate decarboxylase with antimalarial activity’, were published in the March 2007 issue of the *Journal of Medicinal Chemistry* (2007; 50:915-21).

MEENAKSHI KASHYAP, Toronto, Canada
Dalit patients ignored by medics
A team from a Madurai-based human rights organization, Evidence, has found that some doctors and paramedical staff in some primary health centres in Tamil Nadu refuse to touch Dalit patients. The findings came up in a study on untouchability in the panchayats, where the post of panchayat president has been reserved for dalits. It was only in 2007 that elections were finally held in Keeripati, one of the reserved panchayats where elections were not held for the past decade as no Dalit was allowed to file a nomination. It is well known that years of the self-respect movement in the state has not been able to eliminate caste prejudice, and that the health services are not exempt. This is one of the few systematic attempts to record the existence of caste discrimination in the health services in Tamil Nadu, but it is only an incidental finding and not the main focus of the report. Many symptoms of social backwardness (e.g. the selective killing of girl children) continue to haunt Tamil Nadu.

GEORGE THOMAS, Chennai, Tamil Nadu

Bhopal gas disaster: An update
A letter from the chairman of Dow Chemical Company, Andrew Liveris, to the Indian ambassador to the USA, Ronen Sen, claims that representatives of the Indian government made statements absolving Dow of responsibility for the Bhopal gas tragedy. In the letter, Liveris requests that the Union Ministry for Chemicals and Fertilizers withdraw its order asking Dow to pay Rs 1 billion for cleaning up the area contaminated by the gas leak. The letter has been forwarded to the deputy chairman of the Planning Commission, Mr Montek Singh Ahluwalia, by Mr Ratan Tata, stating that his offer to lead and find funding for remediation of the site still stands. The letters were obtained by the Bhopal Group for Information and Action through an RTI (Right to information) application, and the contents were announced at a press conference on 10 April 2007.

Over the past few years, various representatives of the victims of the disaster have been calling for a clean up of the disaster site to ensure that drinking water supplies are safe in the area. A deadlock between the Union Ministry for Chemicals and Fertilizers and Dow Chemical Company currently exists over this issue.

PRABHA DESIKAN, Bhopal, Madhya Pradesh

Indo-German collaborative centre for infectious diseases' research inaugurated
In a meeting held at the Indian Council of Medical Research (ICMR) headquarters in Delhi on 3 April 2007, an Indo-German Science Centre for Infectious Diseases (IG-SCID) was inaugurated. This is presently a virtual centre, which will enable collaborative efforts between Indian and German scientists in the area of infectious diseases, which are of interest to both sides. ICMR and the Helmholtz Centre for Infection Research in Braunschweig, Germany and its partners will share the costs of this partnership, according to the need and requirements in the respective countries.

Twinning projects on either sides have been envisaged which would also include joint workshops, short term and long term fellowships over the next 3 years. The Joint Steering Committee and Scientific Advisory Committee comprising experts from India and Germany would provide guidance, as well as select the projects to be funded for research under the initiative. It is envisaged that the funded projects would begin by early 2008.

'Infectious diseases are a global problem', Professor Rudi Balling of Helmholtz Centre for Infection Research in Germany pointed out. 'Their economic impact is enormous, and their spreading reflects economic inequality, because the poorest people are most affected. So our goals are ambitious: In five twinning projects we will advance knowledge, gain a more thorough understanding of the infection processes and, in the end, hope to bring results from bench to bedside.'

The aim of the partnership is to build on the strengths of both Indian and German scientists and engage in a spirit of partnership and trust. This partnership comes at a time of increasing exchange with the European Union in various areas, including health research.

Professor G. S. Chhatwal, Director, Division of Microbiology, Helmholtz Centre for Infection Research stated that the area of infectious diseases represented the main focus of Helmholtz Centre for Infection Research, Braunschweig, Germany and a number of ICMR institutes in India. Scientists in both countries, however, had different strengths—mouse models and preventive/therapeutic strategies in Germany and genetic susceptibility as well as clinical research in India. He therefore felt that research cooperation between German scientists and ICMR would have added value in understanding mechanisms of infectious diseases. He stressed, 'Particular emphasis would be placed on the establishment of joint research projects in which scientists from both countries would form interdisciplinary research teams that would be internationally highly competitive, and provide a training ground for the next generation of young investigators.'

Some areas of possible collaborative work include vaccines and anti-infectives, zoonoses including bird flu, genetic susceptibility, viral diseases, and animal models of infectious disease. An explicit goal of the centre is the development of ideas and strategies for new vaccines and anti-infectives. Discussions have taken place for appropriate management of IG-SCID, including intellectual property and technology transfer arising from the projects under the centre.

ANANT BHAN, Pune, Maharashtra