News from here and there

Genetic and cellular repository of patients with mental health problems to be set up at NIMHANS

Recent data suggest that the burden of non-communicable diseases in India is on the rise. Mental health problems constitute an important cause of morbidity. In his ceremonial address at the National Institute of Mental Health and Neurosciences (NIMHANS), Bengaluru, convocation on 13 February 2016, the Union Health Minister stated that NIMHANS will be hosting the genetic and cellular repository of patients with mental health problems under the mission of the Prime Minister under the programme 'Accelerating the application of stem cell technology in human disease'. The repository, the first-of-its-kind in the country will be a collaborative effort involving Bengaluru-based institutions—NIMHANS, National Centre for Biological Sciences (NCBS), Institute for Stem Cell and Regenerative Medicine, among others.

Dr S.K. Shankar, Emeritus Professor of Neuropathology at NIMHANS told this correspondent, 'The international project on longitudinal study of a cohort of patients with genetic neurological disorders is under Professor Sanjeev Jain, Department of Psychiatry and Dr Panicker and scientists from NCBS working on stem cells. The study is unique, in that they will be studying blood samples of the same subject in a longitudinal way over time; thus the changes in the genetic makeup can be recognized. Till date, there have been only one-point studies, thus not addressing the longitudinal progression of the disease and probable genetic alteration during the course of the disease. For this purpose, establishing a DNA bank to collect multiple blood samples from subjects, store and analyse them …will give an insight into genetic alterations that may occur with the progression of the neurological/psychiatric disorders. This is the first effort of its kind in the country and may inspire others to undertake studies on longitudinal cohorts. This [is a] unique and valuable study . . . This is another facet of bio-banking with stress on genetic alterations.'

ALLADI MOHAN, *Tirupati, Andhra Pradesh*

Academic innovations in Rajiv Gandhi University of Health Sciences (RGUHS), Karnataka

The Rajiv Gandhi University of Health Sciences (RGUHS), Karnataka, has embarked upon several academic innovations. The RGUHS has planned to establish a 'quality network' with the University as its hub and affiliated medical colleges as the nodes. All affiliated medical colleges are required to establish a core committee by 5 February 2016, and establish the institutional quality monitoring cell (IQMC). The institutional head shall be the chairperson for the core committee and an interested senior faculty will be the convener. The RGUHS is planning to organize faculty workshops in the second quarter of the calendar year to sensitize the core committee members of each medical college so that the IQMCs become operational by the end of 2016. This exercise is aimed at generating quality evidence in academic matters and health research and its dissemination.

In India, though it is mandatory to seek permission/recognition of Medical Council of India and Dental Council of India to start/run courses, and the National Assessment and Accreditation Council (NAAC) accreditation is obtained by medical colleges, no reliable metric or benchmark is available for guidance to prospective students on how to choose the medical college they wish to join from among the available options. The RGUHS Karnataka, for the first time, has decided to grade medical colleges under its purview in terms of infrastructure and academic research into A, B and C grades. It is estimated that 50% of colleges may fit into A grade; 30% would be rated B and the remaining would be categorized as C. This will allow the medical colleges to periodically review their performance and improve their grade by improving their infrastructure and enhancing their academic performance.

That medical colleges in India have varying standards and reputations has been shown earlier (*Natl Med J India* 1996;**9:** 135–40 and *Curr Med Res Pract* in press) by the groups led by Dr Samiran Nundy, currently Dean, Sir Ganga Ram Institute for Postgraduate Medical Education and Research, New Delhi and Emeritus Editor, *The National Medical Journal of India*. Dr Nundy commented: 'I think it's a great idea. As we, as well as others, have shown, in India there is a wide variation in the standard of medical colleges as well as probably the kind of doctors they produce. There is also very little hard data on this subject. Measuring their quality "officially" by a body such as the RGUHS would be a good idea. In the USA there is a similar annual assessment published by the journal *US News and World Report,* which is taken very seriously by American institutions but it is obviously not official. This will be a benchmark for other Indian states to consider replication.'

ALLADI MOHAN, *Tirupati, Andhra Pradesh*

India exports more scientists and engineers to USA than any other country

The USA sees an annual immigrant influx of scientists and engineers from various parts of the world and this percentage has been steadily increasing over time. As of 2013, there has been an overall increase in the number of immigrant scientists and engineers in the USA from 16% to 18%, with Asians making up 57% of the list. A recent paper published by the National Science Foundation (NSF) and National Center for Science and Engineering Statistics (NCSES) in January 2016 put Indian expatriates at the top of this list with an 85% increase in the number of Indian scientists and engineers migrating to the USA in 2013 compared with their compatriots in 2003. In terms of numbers, Indians constituted 950 000 of the 2.3 million Asians who defined this trend in 2013.

The decade between 2003 and 2013 saw the total number of scientists and engineers residing in the USA increase to 29 million from 21.6 million with the number of immigrant scientists and engineers rising to 5.2 million from 3.4 million. Besides India, the expatriate population of scientists and engineers migrating to the USA from the Philippines increased by 53% and from China, including Hong Kong and Macau, increased by 34%.

The study by NSF—an independent federal agency supporting

fundamental research and education across all fields of science and engineering—also noted that the immigrant scientists and engineers were more likely to have earned post-baccalaureate degrees than their US-born counterparts with 32% of immigrant scientists having a master's certification as their highest degree (compared to 29% of US-born counterparts) and 9% having a doctorate (compared to 4% of US-born counterparts).

Engineering, computer and mathematical sciences and social and related sciences were the commonest fields of specialization with 18% working in computer and mathematical sciences, and 8% in engineering.

These immigrant scientists and engineers in America had settled as naturalized citizens of the USA (63%), permanent residents (22%) and temporary visa holders (15%). Over 80% of them were employed in 2013, a statistic similar to their US-born counterparts.

Dr Fitzhugh Mullan, Professor of Health Policy and Professor of Pediatrics, George Washington University, Washington DC, USA and author of the seminal paper 'The metrics of the physician brain drain' published in the *New England Journal of Medicine* in October 2005, when contacted by this correspondent for a quote on the recent NCSES report stated: 'The Indian subcontinent and India, in particular, has been a huge donor to the physician workforce of the United States with [about] 5% of the physicians in the US having been trained in India. This has been a huge gift to the US, a country with almost 300 medical doctors for every 100 000 people. The flip side of this story, though, is the medical haemorrhage that it represents for India, a country with only 60 medical doctors per 100 000. This level of emigration is not sustainable for any country that is serious about meeting the Sustainable Development Goals or providing universal health coverage for its population. Medical students must be selected who are intent on improving the healthcare system in India and support for practice must be increased to incentivize careers in medical service in all areas of India—if health care and health outcomes in India are to improve.'

MAHARRA HUSSAIN, *Dubai, United Arab Emirates*

Agenda unveiled to eradicate malaria in India by 2030

On 11 February 2016, Mr J.P. Nadda, the Union Health Minister, launched in New Delhi the National Framework for Malaria Elimination (NFME; Framework) with the aim of wiping out the disease from India by the year 2030. The NFME 2016–2030 was launched by the National Vector Borne Disease Control Programme (NVBDCP) of the Ministry of Health and Family Welfare after wide-ranging consultations beginning in October 2015. The Framework was developed in close collaboration with experts from the Indian Council of Medical Research (ICMR), WHO, and members of various institutions and professional bodies.

The vision of the Framework is to eradicate malaria nationwide and to contribute to health and quality of life of all citizens and to mitigate poverty. In tune with the WHO Global Technical Strategy for Malaria 2016–2030 and the Asia Pacific Leaders Malaria Alliance (APLMA) Malaria Elimination Roadmap, the goals of the Framework are to eliminate malaria (i.e. zero local cases) throughout India by 2030, to sustain a malaria-free status in areas where malaria transmission has been interrupted and to prevent re-establishment of this dreaded disease.

The Framework has four objectives:

1. Elimination of malaria from all 26 low (category 1) and moderate (category 2) transmission states and Union Territories (UTs) by the year 2022.
2. Reduction of malaria incidence (1 case/1000 population/year) in all states, UTs and the districts by the year 2024.
3. Interruption of indigenous transmission of malaria throughout the country, including category 3 (high transmission) states and UTs by the year 2027.
4. Prevention of reinstatement of local transmission of malaria in those areas wherein it has been eliminated and to maintain malaria-free status in the country by the year 2030.

India contributes 70% of cases of malaria and 69% of deaths due to the disease in the Southeast Asia region. Currently, 80% cases of malaria occur among 20% of the population considered to be at high risk for malaria. This population is located in approximately 200 districts of Andhra Pradesh, Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Odisha, West Bengal and the seven northeastern states.

From 75 million cases and 0.8 million deaths annually due to malaria in the pre-Independence era, there is a reduction to 1.1 million cases and 562 deaths in 2014 with the success of the National Malaria Control Programme (1953), the National Malaria Eradication Programme (1958), the Urban Malaria Scheme (1971–1972), the Modified Plan of Operation (1977), the *Plasmodium falciparum* containment programme (1977) and the NVBDCP (which was launched in 2003–04).

Malaria reduction was also due to new tools and technologies such as rapid diagnostic tests, artemisinin-based combination therapy and long-lasting insecticidal nets. A major part was also played by increased human resources, capacity building, community-level awareness, and domestic and external investments such as the Global Fund and the World Bank.

In 2015, WHO released the Global Technical Strategy for Malaria 2016–2030, which encouraged quickening of global malaria elimination efforts and set targets to reduce malaria mortality rates and case incidence globally by 90% in 2030 (baseline 2015); eliminate malaria from at least 35 countries in which the disease was spread in 2015 and to prevent re-establishment in all malaria-free countries.

In November 2014, the APLMA (18 countries including India) agreed on the goal to a malaria-free region by 2030. The APLMA Malaria Elimination roadmap was endorsed in November 2015, in association with the WHO Global Technical Strategy for Malaria 2016–2030, and the Roll Back Malaria Partnership document 'Action and Investment to defeat Malaria 2016–2030'.

In line with these international strategies, timelines, and with a concrete commitment from the Government of India, and also sustained by the achievements of a declining malaria trend, the country is confident of a paradigm shift from malaria control to its elimination by 2030.

P.M. NISCHAL, *Bengaluru, Karnataka*