

News from here and there

MD degree from Russia is misleading

The state-level annual conference (GAPICON 2009) of the Andhra Pradesh Chapter of the Association of Physicians of India (API) was held at Guntur on 13 September 2009. Inaugurating the conference, the Chairman of the Chapter and former Director of Medical Education (DME), Andhra Pradesh, Dr I. Venkateswara Rao highlighted the issue of 'MD' degree holders from Russia. He said that doctors who had taken a degree in medicine from Russia display a tag of 'MD'. In India, an 'MD' degree is awarded as a postgraduate qualification, but the Russian degree of 'MD Physician' is equivalent to MB,BS in India. Dr Rao said that this issue needs to be brought to the notice of the Medical Council of India (MCI), as graduate degree holders who display a postgraduate degree can mislead the public. Section 7.20 of the Indian Medical Council (Professional Conduct, Etiquette and Ethics) Regulations, 2002 mentions that 'A physician shall not claim to be specialist unless he has a special qualification in that branch'. The Ethics Committee of the MCI has discussed this issue earlier on a complaint lodged by a member of the API. The Ethics Committee of MCI suggested that it was necessary for doctors with 'MD Physician' degrees to indicate in their registration form that the 'MD Physician' degree is equivalent to the MB,BS degree in India.

ALLADI MOHAN, *Tirupati, Andhra Pradesh*

Cadaveric organ transplant programme: A success in Tamil Nadu

Over one hundred organs from brain dead donors have been transplanted in Tamil Nadu, 1 year after the government took steps to promote cadaveric organ transplant. Sparked by the first donation by a doctor couple of the organs of their child, there has been a slow but steady stream of donations. The structured organization for donation, the clear rules as to how the organs should be shared, and the cooperation of several government agencies have made the programme a success. Some problems still exist, notably the very few donations from government institutions, primarily because of the difficulty in counselling relatives and the reluctance of neurologists to certify brain death. The fact that donations come from all social strata demonstrate that the programme can grow. Efforts are on to issue smart cards with the information that the person would like his or her organs donated in case of brain death.

GEORGE THOMAS, *Chennai, Tamil Nadu*

Innovative conference of Indian and Canadian experts to tackle cardiovascular disease in south Asian populations

The Canada-India Networking Initiative is planning a conference, 'Chronic Non-Communicable Disease in the Context of

Cardiovascular Health—Social, Economic and Clinical Impact: Opportunities and Challenges for Collaboration between India and Canada'. Cardiovascular disease (CVD) is a major disease burden among South Asians, both within India and internationally. WHO predicts that by 2030, the largest increase in CVD deaths will occur in the South-East Asia Region. Beyond its direct impact on health, CVD plays an important role in development outcomes such as education and economic growth.

The meeting will have goal-oriented sessions. Delegates will produce recommendations that will ultimately shape the development of pilot projects. 'The problem has already been identified, we are bringing people together to find solutions', says Conference Chair Dr Arun Garg, University of British Columbia (UBC), Canada. Satellite pre-conference workshops are already under way to prepare delegates and accelerate the production of tangible outcomes. For example, through a partnership with UBC MITACS (Mathematics of Information Technology and Complex Systems), the teams are developing epidemiological mathematical models to monitor the burden of CVD. 'We are pleased to be participating in this initiative', said Dr Arvind Gupta, MITACS CEO and Scientific Director. 'MITACS has strong knowledge base in the application of mathematic modelling and this major public health problem will certainly benefit from this expertise.'

The Canadian Institutes for Health Research and the Indian Council for Medical Research are some of the major sponsors and their role will be to engage leading scientists to explore the future direction on research programmes in CVD in both countries. Conference Co-Chair Dr Arun Chockalingam, Professor of Global Health at Simon Fraser University, Canada, comments: 'Research is going to drive the future agenda. If you don't explore the issues deeply and rigorously, from an interdisciplinary perspective, the outcomes won't be long-lasting'.

'Intense efforts must be made through a diverse range of outlets, everything from research and policy to social and behavioural modifications', adds Dr Garg. Other partners include the Indira Gandhi National Open University, Public Health Foundation of India, Centre for Research in Rural and Industrial Development, Fraser Health Authority, Michael Smith Foundation for Health Science, Public Health Agency of Canada and the International Academy of Cardiovascular Sciences. The meeting will be held at Simon Fraser University, 21-23 June 2010, Surrey, Canada (Dr Arun Garg, arun.garg@fraserhealth.ca and Dr Arun Chockalingam achockal@sfu.ca, Conference Coordinators; <http://www.mitacs.ca/conferences/CINI2010/>).

PAMELA VERMA, *Vancouver, Canada*

Telomerase researchers awarded Nobel prize

The 2009 Nobel prize for physiology or medicine was awarded to 3 researchers who have made major contributions to cell biology. Elizabeth Blackburn (University of California, San Francisco, USA), Carol Greider (Johns Hopkins University School of

Medicine, Baltimore, USA) and Jack Szostak (Massachusetts General Hospital, Boston, USA) worked on the problem of how chromosomes protected themselves from getting degraded during division. Their research, in the 1970s and 1980s, showed that the structure called the telomere, which lies at the ends of the chromosomes, is responsible for this. As is well known, during cell division, DNA is copied base by base by DNA polymerase enzymes. However, the lagging strand of the DNA loses a part of the telomere. Thus, one would expect the chromosome to shorten every time the cell undergoes division, which is not what happened in nature. These researchers showed that the telomere—a sequence of repetitive DNA—protected the chromosomes.

Blackburn had shown that the sequence of the telomere in *Tetrahymena* species was CCCCAA; later, she collaborated with Jack Szostak and showed that the DNA sequence of the telomere protected the minichromosomes of yeast from degradation. Next, Blackburn and her student, Greider discovered the enzyme telomerase which builds telomeres by replacing the DNA which is lost during cell division.

The implications of this discovery are tremendous—because cancer cells can divide infinitely, it suggests that cancer cells possess greater amounts of telomerase than normal cells. Further, telomere shortening may be one of the factors that determines the ageing process in organisms. The discovery of telomeres and telomerase has improved our understanding of cell biology and has led to potential new methods of treatment.

Ram Datar (Co-Director, Biomedical Nanoscience Institute of University of Miami and Associate Professor of Pathology) told the *Journal*, ‘Telomerase is a “ribonucleoprotein complex” composed of a telomerase reverse transcriptase (TERT) protein component and a human telomeric RNA (hTR) primer sequence which acts to protect the terminal ends or “telomeres” of chromosomes; the longer the telomeres are maintained, the longer

does the cell survive. As longevity increases in the developed and developing world, the emotional and economic severity of diseases that come hand-in-glove with the ageing process impacts us all. These diseases include cancer, cardiovascular diseases and diabetes. Thus, for example, a sudden myocardial infarct could be a result of telomerase activity at the site of blockages in coronary artery tissue, which drives the growth of the blockage. Inhibiting telomerase action by blocking either the protein component or the RNA primer component is therefore a valid therapeutic option. Given that a separate pathway to maintain telomere length termed ALT (Alternative Lengthening of Telomeres), perhaps involving multiple recombination events at the telomere, also exists, targeting hTR is possibly a more viable option for drug development. It would, however, be prudent to keep in mind that telomerase is involved not only in extending telomeres, but also in stopping glycolysis in cancer stem cells and preventing the upregulation of nearly 70 bad genes, which probably kills cancer stem cells when used therapeutically.’ He adds, ‘Conversely, extending telomeres to enhance longevity is a dreamy endeavour, which—given the caveat that adding life also possibly adds potential for age-related diseases—can land us in an ethical quandary. Philosophically speaking, one wonders if it is not better to stop yearning for immortality or even longevity, because after all, as Gloria Pitzer so eloquently said, ‘about the only thing that comes to us without effort is old age’. Having lived a productive adult life, the shorter we keep the window open for insults to the body, the easier will the ripe leaf fall away from the tree.

Only 10 women have been awarded the Nobel prize in medicine since 1901. This is the first time that two women have shared the prize. The laureates receive a gold medal, a diploma and share the prize money of 10 million Swedish Kroner (US\$ 1.42 million).

SANJAY A. PAI, *Bangalore, Karnataka*

The National Medical Journal of India is looking for correspondents for the ‘**News from here and there**’ section. We are particularly interested in getting newswriters from the north and northeast regions of India as well as from other countries. By news, we refer to anything that might have happened in your region which will impact on the practice of medicine or will be of interest to physicians in India. The emphasis of the news items in this column, which are usually from 200 to 450 words, is on factual reporting. Comments and personal opinions should be kept to a minimum, if at all. Interested correspondents should contact SANJAY A. PAI at sanjayapai@gmail.com or nmji@nmji.in.