

**THE LASKAR AWARDS**

This year the Laskar Awards go to 3 scientists who developed the modern cochlear implants. The history of the cochlear implants is interesting. The story begins in the 18<sup>th</sup> century. The intrepid scientist, Count Volta, who discovered the electric battery, inserted 2 metal rods into his ears and connected them to a battery. He reported he heard a sound 'a kind of crackling, jerking or bubbling as if some dough or thick stuff was boiling'. Fifty years later, a Frenchman, Duchenne, tried using an alternating current to stimulate his hearing and heard what he described as a sound like a trapped insect.

The hypothesis that electric current can be transformed into sound and vice versa in the ear slowly gained momentum. In 1957 came the first stimulation of an acoustic nerve with an electrode, by the scientists Djourno and Eyries. In that experiment, the person whose nerve was being stimulated, could hear background noise. A major advance was made when researchers learned that specific auditory nerves must be stimulated with electrodes in the cochlea in order to reproduce sound. The seventies saw more people getting implanted, continued research, and the development of a multichannel device. Throughout the nineties, other improvements were made in speech processors and other implant technology, particularly the miniaturization of the speech processor so that it could be incorporated into a BTE hearing aid-like device.

Today cochlear devices have helped 320,000 recipients around the world; many are children who get the devices at age 1 or 2 and go on to attend regular schools (*The New York Times* 9 September 2013).

**THE STATE OF WORLD HUNGER**

One in 8 people worldwide (842 million) is suffering from chronic hunger. Chronic hunger has been defined as not getting enough food to lead an active and healthy life. Sub-Saharan Africa has the highest prevalence of undernourishment, with modest progress in recent years. Western Asia shows no progress, while Southern Asia and Northern Africa show slow progress. An estimated 26 percent of the world's children are stunted, 2 billion people suffer from one or more micronutrient deficiencies and 1.4 billion people are overweight, of whom 500 million are obese. New modes of transportation, leisure, employment and work within the home, have caused people to lead more sedentary lifestyles and to demand more convenient

foods. Sadly, in India and South East Asia, cereal consumption of the poor has remained stagnant or even fallen, because of incremental expenditure on health, transport, and tobacco (*The Hindu* 2 October 2013).

**BIOMEDICAL AND HEALTH RESEARCH BILL**

The government proposes to regulate all biomedical research by bringing them under a law. The decision was precipitated by the report on the Parliamentary Committee on Health which passed strictures against the government and ICMR for the deaths related to the HPV vaccine in tribal girls in Andhra Pradesh and Gujarat. The law will ensure compulsory registration and evaluation of ethics committees set up in all research institutions. A "Research Related Injury Relief Fund" is being planned, from which compensation will be paid. Presently clinical trials with only new drugs are regulated under the Drugs and Cosmetics Act 1940. Now research on human subjects in areas like assisted reproductive technology, organ, tissue and cell therapy, gene therapy, nano-medicine, neurosciences and mental health will all be under the purview of this new law. Human participant in research may be paid due compensation but not such that it can be called inducement (*The Hindu* 19 & 26 September 2013).

**TWEAKING WIKIPEDIA**

The University of California, San Francisco has started a new 1-month course in 'editing' for 4<sup>th</sup> year medical students. The course is about editing Wikipedia articles about diseases, part of an effort to improve the quality of medical articles in the online encyclopedia, and help distribute the articles globally via cellphones. This will be part of Wikiproject Medicine, which focuses contributors on the 100 or so most significant medical articles, especially on those important articles that need the most editing. Translators Without Borders, will then create medical articles for Wikipedias in languages spoken in countries that often lack high-quality medical information. The Wikipedia Foundation is making deals with cellphone carriers to provide these high-quality medical articles on Wikipedia free of data charges, especially in the developing world where cellphones are often the only connection to the Internet (*The New York Times* 29 September 2013).

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