

source of secondary data and references while writing research papers.

Rajendra Dobhal (NRDC, New Delhi) explained efforts of NRDC towards women empowerment on education and societal transformation. Citing various examples of empowerment of women in various fields, he pointed out that there is lot more to be done towards their involvement in S&T in Uttarakhand. S. P. Singh (formerly HNB Garhwal University, Srinagar, Uttarakhand) said that as far as India is concerned, the era is changing and Government is developing infrastructure and favourable conditions for development. Now is the right time to think over developing opportunities for women community, especially in S&T. He shed light on various programmes of Indian Government which have been devised to propagate women empowerment in S&T. B. R. Arora (formerly Wadia Institute of Himalayan Geology, Dehradun) delivered his talk on the societal responsibility and efforts to support aspirations of women and to break the discriminating attitude.

In the technical session, V. P. Sharma (formerly ICMR, New Delhi) delivered as lecture on 'Methods of scientific paper writing'. He said that a good paper contains logical sequence of investigated matter with text and illustrations. Paramjit Khurana (NASI) in her talk on 'The

art of paper writing' said that research is not completed until it is published. She further explained various salient features, which young researchers often do not notice, such as number of objectives under a title, use of English and data presentation using figures, graphs and table and discussion part. U. C. Shrivastava (NASI) told that identifying objectives under given research idea is critical and should be carefully set after rigorous exercise of reviewing the literature and finding out the gaps. He also said that objectives should be divided under general and specific categories. D. P. Uniyal (UCOST) speaking about 'Project writing, funding mechanism and IPR issues and its management' explained that for a good project, gap area is to be highlighted which shows the novelty or necessity for a new project. He also stressed that objectives should be set in such a way that they can be achieved in specified time.

Jyoti Sharma (DST, New Delhi) delivered her lecture on 'Schemes of DST for women'. Subhra Chakravarty (NIPGR, New Delhi) explained the efforts made by her group in proteogenomics. Her study on metabolic pathways and immunity in chick pea applying proteogenomics was greatly appreciated. Citing thrust areas for research in Himalayan region, Anil P. Joshi (HESCO, Dehradun) said

that real science associates us with the society. He felt that science has lot for urban and very less for rural; therefore, planners and policy makers should think over it. He suggested S&T intervention in the existing rural wisdom for advancement of rural society. Kiran Negi (HESCO) in her lecture on 'Women empowerment using indigenous resources of mountain' spoke about the efforts made by HESCO in establishing of Mahila Bachat Bank (Women Saving Bank) in rural areas of Uttarakhand to cater to the need of finance of rural women. She also explained 'Decentralized economic development pursuit' and 'Ecological-economic drive' by afforestation, water farming, soil enrichment measure, non-carbon emitting pursuit, resource-based enterprises which are undertaken by HESCO. She highlighted the need for strengthening of rural producer-consumer network.

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MEETING REPORT

Blood and blood products; Laws by letters and spirit*

The seminar was inaugurated by the welcome speech of Ananga Mohan Chandra, ISCA, Kolkata Chapter. He mentioned about the contributions of Bidhan Chandra Roy in the upliftment of the society both as a physician as well as the former Chief Minister of West Bengal.

The occasion was graced by the presence of eminent personalities like Amit Krishna De (Indian Science Congress

Association), Arun Kumar Pandey (Indian Science Congress Association), Biswapati Mukherjee (University of Calcutta), Debasish Bandyopadhyay (University of Calcutta), Somnath Gangopadhyay (University of Calcutta) and Sankarashish Mukherjee (University of Calcutta), A. K. Hati (School of Tropical Medicine, Kolkata) chaired the session.

A. Ganguly (Centre for Transfusion Medicine, Kolkata) delivered a lecture on 'Rational use of blood and blood products'. He said about the various types of blood products, their clinical uses and limitations. These specialized blood products, i.e. frozen plasma, platelets, serum, etc. have made it possible to

make a single unit of blood useful for five different patients with five different kinds of requirements. According to him, primarily 13 different types of blood transfusion risks still remain despite thorough screening of the donated blood. The main reason is that the pathogens in blood may mutate and evolve as drug-resistant strains. So the existing kits may not be able to detect the blood viruses. On the other hand, no kit in the world can detect the viruses present in blood on day 1 and so we have to wait for 3–4 days for detection of virus, if any, in the transfused blood. Thus we are not getting zero risk blood. Then what is the way out to remain out of risk in situations where blood transfusion is unavoidable? The

*A report on the seminar 'Blood and blood products; Laws by letters and spirit' held at the Department of Physiology, University of Calcutta, Kolkata. The seminar was sponsored by the Indian Science Congress Association, Kolkata Chapter, in celebration of the Doctor's Day on 1 July 2014.

best way is to get blood transfused from some known donor, either a relative or a close friend whose social habits and details are known for long time. Ganguly mentioned that blood donation camp is not generally encouraged in places like Memari, in the district of Burdwan, West Bengal where malaria is endemic and hence the risk of presence of *Plasmodium* in blood is high. He also said about Single Donor Platelet (SDP). SDP is a process in which blood is drawn from the donor, is sent to a special blood bag, which is housed in the Apheresis Machine. The machine spins, separates the platelets and sends back the remaining components of the blood to his body. It is possible to obtain 300 ml of platelet from one donor. He said that Kolkata has many SDP centres. He mentioned about the 'safe blood transfusion community' in Kolkata.

Ganguly mentioned about the requirement of blood transfusion for pregnant mothers and the related problems. WHO celebrates Blood Donor's Day on 29 of June every year and the slogan for 2014 is 'Save the Mother'. The mothers who need blood transfusion urgently and belong to the outskirts of the city or in villages are at high risk. We hear reports of death of several pregnant mothers every

day who die because of not being able to reach the immediate blood transfusion clinic or hospital. He said that awareness about such difficulties has increased these days and situation is improving. He also recollected the contributions and philosophy of Bidhan Chandra Roy not only as a great physician but also as the former Chief Minister.

T. Bose (National Medical College, Kolkata) spoke on 'Law by letters and spirit'. He said that the main philosophy of doctors is that 'if the patient is smiling, the doctor is happy'. The rules, regulations laid by law are termed as 'letters' while the judgement, thoughts, ethics and abilities of oneself to discriminate between right and wrong are termed as 'spirit'. The purpose of law is the need of the society. But the problem is that the laws are made considering some specific conditions and they are never foolproof. Often it happens that practical situations appear to be violating laws even though they are not so in true sense. He mentioned about the PNDT Act, i.e. Prenatal Sex Determination Act. The act makes prenatal sex determination unlawful considering the increasing incidence of female foeticide in India. But the true scenario is that rich people can fly to some other country nearby where there is

no PNDT act and can get the prenatal sex determination test done. Thus the law is not foolproof and is not serving the purpose for which it is made. On the other hand, if the society needs to be reformed and female foeticide needs to be stopped, we have to educate women and provide opportunities for being self-dependent. Only 'letters' are not enough, we need the 'spirit'.

Bose mentioned about the harassments of the doctors due to wrong implications of the 'letters' and misunderstandings. The fact is often different from what it appears to be. He mentioned about few laws and their flaws, e.g. laws regarding euthanasia or mercy killing. According to Bose, the only way to prevent one from getting misguided by appearance of the situations and surroundings and to decide right and wrong is to keep one's ears and eyes open. He concluded with the statement that it is our 'attitude' towards life that makes our life 100% and that we should always keep a positive attitude towards life to get 100% out of life.

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MEETING REPORT

Cochlear implant – a boon for deaf people*

It is known that deaf or near deaf children and adults do not get benefited with hearing aids because these electroacoustic devices simply amplify sounds for the damaged ears to detect sounds. In its place, a cochlear implant, a surgically implanted electronic device in the ear has proved to be a better option for people with severe to profound deafness. Also, people with severe nerve deafness may benefit from the implant. According to the Food and Drug Administration, about 324,200 people have received cochlear implants as of December 2012.

*A report on The International Symposium on Cochlear Implantation, organised by ENT Department, Jaslok Hospital, Mumbai, during 20th and 21st August 2014.

Sandra Desa Souza (Jaslok Hospital and Breach Candy and Desa's Hospital, Mumbai) convened the symposium, performed live surgeries and participated in scientific programme together with Dillon D'souza (Jaslok Hospital, Breach Candy Hospital and Desa's Hospital), Jaques Magnan (Cochlear Implant Surgeon, Hospital Nord, Cedex, France) and J. M. Hans (PGI, Chandigarh). Audiologist Shernaz Shah presented the results after rehabilitation in operated cases.

According to the surgeons, cochlear implants bypass the damaged portions of the ear and directly stimulate the auditory nerve. The implant produces signals that are sent through the auditory nerve to the brain, which recognize the signals as sound. Hearing through a cochlear

implant is different than normal hearing. It allows people to recognize warning signals, recognize or understand sounds and can converse in person or even on telephone.

Cochlear implant is an electronic device, the internal component of which is implanted during the surgery while the external component that consists of a microphone, sound processor and transmitter system, is later worn on the body. The implanted receiver and electrode system contains the electronic circuits, which receive signals from the external system and send electrical currents to the inner ear.

The latest devices include a magnet that holds the external system in place next to the implanted internal system.