Infosys Science Prize

The Infosys' Science Foundation is the brainchild of Narayana Murthy along with the seven Directors of the company which include Nandan Nilekani, K. Dinesh, S. D. Shibulal, S. Gopalakrishnan, Mohandas Pai, V. Balakrishnan and Srinath Batni. It is a not-for-profit organization set up mainly to honour outstanding science research in India. They have individually contributed towards creating an initial corpus of Rs 21.35 crores.

Recently, India was ranked 119 among 149 countries in the citation index of the world. In 2004, India received only 363 patents compared to 84,275 patents awarded in America, 35,350 in Japan and 5938 in Taiwan. Even though there is no dearth of talented and brilliant scientists in India, there is a major lack of any initiatives for research in the field of sciences. The country is witnessing a rapid decline in students taking up research as a career option due to low incentives and apathy by the government. Students from science backgrounds are opting for a more lucrative career in IT or Business Administration, leading to a huge brain drain. Research in sciences is imperative for a country to move forward and the shortfalls can have a very negative impact in the future.

Keeping all these in mind, Narayana Murthy and the Directors decided to set up the 'Infosys Science Prize' to recognize contributions of extraordinary depth and influence, which raise the status of the sciences in society and stimulate the interest of students towards these subjects. The award is specifically aimed at young achievers since 55% of the population is below 25 years of age.

The Prize will honour achievements in Physical Sciences which include physics and chemistry, Mathematical Sciences which include mathematics and statistics, Engineering Sciences which include all branches of engineering, Life Sciences which include biology and medicine, and Social Sciences and Economics covering a range of subjects like economics, history, sociology, political sciences and other social sciences.

The recipient of the awards will be chosen by a jury comprising five eminent international scientists. The process will run throughout the year. The jury will meet in the second half of every year and the recipients would be decided by the year-end. Prize distribution will be held in January or February. Each recipient will receive an amount of Rs 50 lakhs. This is the largest cash prize in India since independence.

MEETING REPORT

Popularization of science*

Popularization of science is an effective and powerful tool for fighting superstition and religious fanaticism in the society. With the scope of science education and research steadily increasing in this country during the past few decades, the fact still remains that a sizeable portion of our countrymen views science as something alien to their way of thinking. Popular lectures on various scientific topics in public places help inculcate scientific temperament in their minds. Unfortunately to most of our scientists, the idea of talking about science to common people is useless and wasteful.

In this backdrop, the Jnan Bichitra publication, Agartala organized a two-day symposium on popular science. The Bichitra publication has already made history by continuing a Bengali science monthly, *Jnan Bichitra*, for 33 years amidst adversaries and oddities, from a remote place like Agartala. It was their latest feat to arrange a series of popular lectures in Bengali in order to commemorate the bicentenary of the birth anniversary of Charles Darwin (which was actually due in February 2009), the bicentenary of Dalton's atomic theory, the 150th birth anniversary of Jagadish Chandra Bose and Max Planck, and also the birth centenary of John Bardeen. The State Government of Tripura set a commendable example by sharing the financial requirements of the programme.

On 3 December 2008 the symposium was inaugurated by Manik Sarkar, Chief Minister of Tripura. Following prize distribution of a recently concluded essay competition involving school students and the release of eight new books on popular science published by Jnan Bichitra, M. K. Chattopadhyay delivered a talk on the life and work of Charles Darwin. The lecture included a brief account of how the 'wastrel' was turned into the proponent of a time-tasted theory in science. The contribution of Wallace was specified. The conflict between the religious bigotry and Darwinism was highlighted with a note on the present controversy involving intelligent design. The basic tenets of Lamarckism were discussed with a mention of adaptive mutation. The irrational application of the 'survival of the fittest' theory of Darwin to justify social and political oppression was also pointed out.

The next lecture by D. S. Ray (Indian Association for the Cultivation of Science, Kolkata) on '200 years of Dalton's atomic theory', started with the atomistic ideas prevalent in ancient Greece and India. Proceeding step by step, Ray sketched the geometrical constructions of Plato and subsequently emphasized the revival of atomic theory after Aristotle's assumption of continuity of matter. He also analysed the contribution of John Dalton in the light of works by his predecessors like Robert Boyle and Daniel Bernoulli. Principles of chemical combination were explained with concrete examples. Dalton's postulates in relation to the works

*A report on the two-day symposium on 'Popular Science' held at Nazrul Kalakshetra, Agartala during 3–4 December 2008 and organized by the Jnan Bichitra Publications, Agartala.

by Gay-Lussac and Avogadro were also highlighted. A note on the determination of Avogadro number was presented. Ray concluded his lecture with a discussion on whether we can 'see' or 'locate' an atom, and, if so, 'how'.

In the next evening, K. Bhattacharyya spoke on the celebration of '150 years of the birth of Max Planck'. The lecture started with Planck's growth as a student and ended with his death. The influence of different institutions, teachers, friends, family and, above all, the Second World War, on Planck's academic career and preferences in life was highlighted. His contributions to quantum theory, special relativity and thermodynamics were mentioned in a historical perspective, with a major emphasis on the elementary quantum of action that bears his name. His special interests in poetry and music were also pointed out. The various ways of honouring Max Planck were sketched, including stamps and coins released by the then German Government. The last part of the lecture concentrated on the so called 'Planck scales'.

Mihir Kanti Deb (Pollution Control Board, Tripura) talked about John Bardeen on the occasion of 100 years of his birth. He mentioned that Bardeen was honoured by a United States postage stamp on 6 March 2008, as part of the 'American Scientists' series. He discussed about Bardeen's work during the beginning of his career at Bell Lab, that crowned him with the Nobel Prize in Physics in 1956, as co-inventor of the transistor. Later, Bardeen won the Prize again in 1972 for the explanation of superconductivity with Cooper and Schrieffer. The impact of the transistor in modern, popular electronic devices was emphasized. Deb also mentioned about some applications of superconductivity.

The last lecture was delivered by S. Chakrabarti (Department of Chemistry, Calcutta University), a leading exponent of popularizing science among the masses. He focused on '150 years of the birth of Acharya J. C. Bose'. Starting with the academic environment in Kolkata during the pre-independence period, Chakrabarti elaborated Bose's initial interests in physics, particularly semiconductor physics and communication. This earned him international reputation, as rightly emphasized by Chakrabarti. Subsequently, the research interest of Bose shifted to the response of plants to external stimuli and then, significantly to a subject that we know at present as biophysics. Chakrabarti also remarked on the excellent writings of Bose and his aptitude in the vernacular. He provided numerous anecdotes and pictures to substantiate his points. The lecture ended with a discussion on the effort of Bose to establish a research institute of international standard, which is now known as the Bose Institute.

Following this session, a group discussion on prospects and problems in the popularization of science was held, led by Dipak Kumar Dan, a science teacher and a renowned writer of popular science from Kolkata. The number of school children among the audience was encouraging.

The success of the symposium will provide a morale booster to science activists. Similar types of programmes in regional languages in several other parts of the country are likely to foster scientific outlook among common people.

M. K. Chattopadhyay*, Centre for Cellular and Molecular Biology, Hyderabad 500 007, India; **K. Bhattacharyya,** Department of Chemistry, University of Calcutta, 92, A.P.C. Road, Kolkata 700 009, India.
*e-mail: mkc@ccmb.res.in