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PHARMACEUTICS : CURRENT PERSPECTIVE

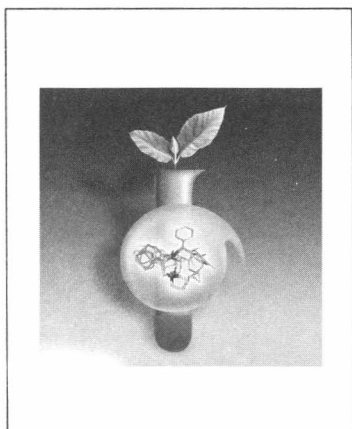
WHEN I was invited by the chief editor to prepare a special issue on pharmaceuticals of the Indian heritage journal Science and Culture I felt puzzled. The 'Pharmaceutics' is an enormously broad area and it is not possible to cover all types of modern development on pharmaceuticals in one particular issue of the journal. I, therefore, made some random selection of topics which are important in the context of present day research and approached international authorities for contribution of the articles. I must thank all the contributors for their prompt response.

The researches on herbal drugs have recently gained tremendous importance. This is due to their ethnic application in the various diseases without much side effects and presence of innumerable bioactive chiral specific pharmacophores to fight against the existing and incoming diseases. The article contributed by Dr. Gordon M. Cragg, USA provides us with detailed information about the development of drugs from plant sources which has been further enriched by an article of Prof. Asima Chatterjee *et al.* on taxol. Prof. S. Ghosal has produced an account of the herbal health product in global perspective. The status of intellectual property right in the development of herbal drugs has been discussed by Dr. S. K. Mitra.

Due to over exploitation of plants for pharmaceutical purpose the global biodiversity has been threatened. In order to solve this problem the genetic engineering has been applied to produce tailor-made active constituents from plants. The account given by Prof. Karin Springob and Prof. Kazuki Saito, Japan, will create interest in this new direction among the readers.

The medical scientists are looking for an ideal analgesic compound for centuries. The opioids serve the purpose well but these suffer from many drawbacks of which addiction is a great problem. A new class of opioid analgesics has been synthesised by Prof. U. Holzgrabe of Germany and her collaborators. The inclusion of this article will be a lead to the scientists working in this area for orienting their endeavour to produce an analgesic substituting opioids.

Leishmaniasis, a group of diseases caused by infection with protozoal parasites, is a global problem. The cutaneous leishmania is prevalent in Africa



and South America and the visceral leishmania (*Kala-azar*) is predominant in some parts of India. Ideal drugs are yet to be discovered to combat these diseases. Dr. S. Frankenburg and her colleagues of Israel are working in this area for a long time and their article in this issue will enrich the research towards development of antileishmanial drugs from antibiotics.

Modern instruments like HPLC are being used now-a-days in pharmaceutical industries for identification of the ingredients and quality control. An article from Mr. Subhabrata Dey has been included to highlight this area.

Some bioactive compounds, in spite of their potential pharmacological effect, are not converted to drugs due to difficulties in approaching the target tissues. The activities of the drugs may be enhanced by suitable choice of an improved delivery system. The article by Dr. Sakthivel Thiagarajan, UK has thrown light in this area.

Drug resistance has now posed a problem in combating certain common diseases. Dr. Sribir Sen has described in his article mechanisms of drug resistance,

novel type of therapeutic agents and their evolution to counter many diseases.

Combinatorial chemistry has emerged recently as a new technology for the synthesis of a large number of probable drug molecules. Ms Swastika Ganguly has dealt with this topic in a nice article.

The current and future status of Indian pharmaceutical industries has been much talked about in recent times, particularly in the context of current development and changes in the Indian patent system. The article by Mr. Dipankar Dutta Gupta has provided us with a brief account of the present scenario in this aspect.

I am indebted to Dr. (Mrs.) Banasri Hazra, Department of Pharmaceutical Technology, Jadavpur University, Kolkata for her kind help in procuring some of the articles. I express my gratitude to the chief editor and other members of the editorial board for providing me with the opportunity of editing this special issue on pharmaceuticals. □

Biswapati Mukherjee
Guest Editor