

From Chairman's Desk

Herbs and herbal remedies have been healing mankind since time immemorial. It is also known as phytotherapy or use of folk or traditional medicines or plants and the active constituents found within them to cure diseases. Medicinal values of such plants need thorough investigation on modern lines including probable or actual mechanism of action to justify the rationale behind their use and continue their use with adequate guarantee for safety and efficacy. Because, large sections of the population in developing countries still rely on the traditional medicines, medicinal plants and herbal remedies for their primary care. Moreover, public interest in natural therapies is increasing day by day



even in the developed world and industrialized countries. This is a positive sign for the expanding use of medicinal plants and herbal medicines.

The evaluation of traditional products and ensuring their safety and efficacy pose important challenges. Besides direct clinical and therapeutic benefits from medicinal plants another important dimension is, it can also serve as starting materials for the synthesis of potent drugs. This dimension of pharmaceutical research is highly commendable.

History of synthetic medicines reveals that in 1938-40 Russell Earl Marker, discovered a four-step synthesis of progesterone precursor of cortisone from plant steroid, diosgenin from wild Mexican yam. Earlier Lewis Sarett of Merck & Co. was the first to synthesize cortisone from deoxycholic acid, by a complicated 36-step process starting with extraction of deoxycholic acid from ox bile at a great expense of US \$200 per gram, whereas Marker degradation reduced the price to US\$ 80 per gram in 1943 when he obtained 3 kilograms of progesterone from 10 tons of yam, the largest single amount of progesterone that had been produced by that time and by 1944 price reduced to US\$50 a gram. It was an important revolution in mass production of all steroidal hormones, steroidal anti-inflammatory drug cortisone and hormonal contraceptives. Price reduction of progesterone continued to \$0.31 per gram in 1955 to less than \$0.15 per gram in 1957, bottoming out at \$0.08 per gram in 1968.

The singular discovery of Marker was responsible for the first oral useful contraceptive. It led to the development of a fine chemical industry in Mexico which, starting from scratch and in less than ten years, supplied more than half the human sex hormones sold in the United States. The booming industry caused a huge expansion in chemical education in Mexico and contributed plenty to national economy. Further research and use of microbial fermentation technology displaced diosgenin by two products of soya oil processing, stigmasterol and sitosterol. These events are testimony that natural resources are rich in substances of physiological importance and their proper exploration can provide wonders drugs for both for preventive and curative applications. What is important is research concept should be clear and well focused and negative results should not discourage the researcher because;

“If we knew what we were doing it wouldn't be research.”

- Albert Einstein

Every researcher must follow the above gospel; they should not go by gossips. Inference must be evidence based.

Prof. Suresh Nagpal