

Dr.C.L Kaul



**Founder Director (Rt), National
Institute of Pharmaceutical
Education and Research (NIPER)
Chandigarh, India**

Dr.C.L Kaul has recently retired as a Founder Director of National Institute of Pharmaceutical Education and Research (NIPER), Chandigarh. In building this institution of National Importance, Dr.Kaul used his rich experience of working with research institutions within the country and abroad through his associations with industry and educational bodies. He has been Director of Research and Development of Boots Pharmaceuticals, Ltd., Mumbai and earlier rose to become Group Leader of Pharmacology at the prestigious Ciba-Geigy research centre, Mumbai.

Dr. Kaul is a pharmacy graduate from Gujarat University and had his Post Graduate education at the University of London and Glasgow, UK. Apart from carrying out and directing research at the Boots Pharmaceuticals and Ciba-Geigy, he had worked at several research centres in the UK and Switzerland. His research work spanning over more than 4 decades had centered around development and preclinical studies of new drugs, stability studies, bioavailability, pharmaceutical formulations and quality control. His research work has been published in both National and International peer reviewed Journals (More than 150 publications). His main areas of interest are Hypertension, Diabetes, Autonomic Pharmacology and Tropical Diseases.

He is associated with number of Universities and Pharmacy institutions as a visiting professor and is on the Governing and the Management Boards of some of the pharmacy schools. Dr.Kaul is very active professionally and is a member of several scientific organisations. He has been Editor of Indian Journal of Pharmaceuticals Sciences, President of Indian Pharmaceutical Association. He is a fellow of National Academy of Sciences, Punjab Academy of Sciences and Indian Pharmaceutical Association. He was also awarded Eminent Pharmacist Award by the Indian Pharmaceutical Association in 2003.

India: The Pharma Powerhouse

Indian Pharmaceutical Industry (IPI) has made rapid strides over past few decades and is in the front rank of India's knowledge base industry with varied capabilities in the field of drug technology and manufacture. Indian Pharma Market (IPM) is the third largest in the world in terms of volume and 14th in terms of value, with an annual growth of 14-16%. Currently, IPM is around \$21.4 billion and is expected to grow to \$55 billion by 2020. Around 50% of the produce is exported to the regulated markets. India is one of the top five manufacturers of bulk actives and 14th largest exporter. India has large numbers of plants approved by the world's regulatory agencies and have filed more than 2000 DMF. India has a good share of contract manufacturing including manufacturing active pharmaceutical ingredients, conducting pre-clinical and clinical trials and customized chemistry services. Projected revenues worldwide in contract manufacturing are around \$200 billion. There are many drivers to this growth which includes government policies. Although the pharma explosion has helped in improving the healthcare to some extent, the achievements have been less than satisfactory. Various reasons being a) Accessibility of the drugs is around 30-40% of population, b) Disease burden is high and is changing, c) Infant and child mortality and morbidity and maternal mortality and morbidity affects millions of children and women, d) Malaria, TB are re-emerging as epidemics, e) Growing specter of HIV AIDS, f) High out of pocket expenses (OOP) to buy medicines. Primary health care services provided are inadequate in terms of coverage of population particularly in rural areas. India spends around 1% of its GDP on public health which is grossly inadequate. OOP costs are a growing problem in India and around 39 million Indians are pushed to poverty because of ill-health every year. Around 30% of rural population do not go for any treatment for financial constraints. Many states have cut down their spending on purchasing their drugs. Public investment in health care needs to be higher to reduce poverty and raise the rate of economic growth.