INTRODUCTION
"Pharmacology as a science can aid us through its applications, if they are wisely made, to obtain those satisfactions in living which we all crave-satisfactions the drive for which is an inherent part of the built-in make-up of our integrating neurohumoral mechanisms for self-preservation and for the preservation of our human species, with its presumed humanity."

- CHAUNCEY D. LEAKE (1961)

Indian indigenous drugs have great importance from both professional and economic points of view. Medicine is a very ancient art and drugs have been used in days of antiquity as far back as history can take us. Among the large number of drugs used by the practitioners of traditional medicines, like Kavirajes and Hakims, for centuries past and which are still in use, there are many drugs which deserve the reputation they have earned as cures. Many of our important pharmacopeial drugs were known from our ancient history of medicine. These drugs were also used in several form or other, possibly long before they were introduced into the western medicine and before their actions were investigated in modern scientific lines.
Attempts are going on to separate the good ones from the useless ones for which a systematic investigation of these drugs have been undertaken by many research centres with financial support by Govt. of India.

Biomedical research in with research in other field, calls for perseverance and dedication. On the part of the investigators, apart from careful planning and a extensive review of previous work, an intelligent and pragmatic approach to the wealth of knowledge contained in the ancient scriptures, combined with a diligent quest for possible leads from practising Ayurvedic, unani/siddha physicians, folk medicines and other sources, can go a long way in tapping the natural resources of India, the glory of which has been sung by "poets and patriots" from time immemorial but not even been periphery which has perhaps been touched by the scientists so far. It is urgently required for a multi disciplinary approach which has to be implemented inten­sively otherwise research in this field may not yield tangible results.

One of the most talked about and debated issues pertaining to human health, concerns the safety and efficacy of plants as drugs. This is not a recent topic of interest; indeed, it has occupied the minds of human kind for millennia. But, gradually the medicinal plants were officially consigned to near - oblivion with the introduction of synthetic agents. However, in the recent years, people throughout the world are looking for alternative
medicines that have less (or no) side effects than standard drugs in current use and as well have superior therapeutic and preventive value. Such interest is perhaps more prevalent in the developed, than in the developing countries of the world though the latter have a long history of an organized practice in traditional medicine.

"Health for all by 2000 A.D." - to materialise this cherished goal, Director General of World Health Organisation (W.H.O) has agreed that the concept of full utilisation of traditional medicinal systems of all the countries which was also endorsed by participant member countries.

India has a rich heritage of research on medicinal plants and natural products. Traditional systems of medicine like Ayurveda, Siddha, Unani and other systems which are being practised for centuries in India have stood the test of time. The vast herbal and mineral materia medica of these systems and the rich herbal sources of India offer a unique opportunity in our country to evaluate them scientifically. In addition to this there are a number of remedies offered by folklore systems, tribal medicine and other forms of traditional therapy.

Thus, India has all the resources, expertise and potential to take up a leadership in global efforts on medicinal plants and natural products research. A sense of direction and orientation to timebound and target oriented efforts apart from physical facilities and financial inputs are very much needed. Pharmacology
of natural products in India has reached a stage, at present, that requires a scientific will and moral commitment on the part of the investigators, policy makers and planners to usher in the long awaited "Green Revolution" into Indian Pharmacology and Therapeutics, which can offer a host of natural herbal remedies that have been evaluated by standard methodology and authenticated by clinical trials under controlled conditions. Needless to say, this type of achievement may lead towards the cherished goal as well as ensure a better and brighter tomorrow.

Inflammatory diseases including different types of rheumatic diseases are a major cause of morbidity of working force throughout the world. Though rheumatism is one of the oldest known diseases of mankind and affects a large percentage of population of the world, yet no substantial progress was seen till the synthesis of aspirin in 1899 by the German company "Bayer", the initial information of which also was obtained from a plant Willow bark (Salix alba) used worldwide in folk medicine for the relief of ache, fever and rheumatic pain. Since then many compounds have been introduced as anti-inflammatory drugs, while no of them produced dramatic symptomatic improvement in rheumatic process but did not prevent the progress of the disease process and all of them shared gastro-intestinal irritations the most common side effect.

The complete etiology of the inflammatory disease is still not clear to the scientific community because of its complexity;
several inflammatory pathways have been proposed which suggest that probably only a complex molecule can effectively compete with different macromolecular substrates at binding sites.

The medicinal substances contained in a plant can be safely assimilated by the body, since plants are its natural food. Apart from its active principle, a plant contains other substance which may either enhance its therapeutic action or reinforce the healing power by a synergistic process not always fully understood.

Accordingly, systematic investigation on Indian medicinal plants have been started in our laboratory since last few years. Number of plants are currently being evaluated in this programme. *Mikania cordata* is one among such plants and general pharmacological screening of the plant with special emphasis to its anti-inflammatory effect has been studied by the present worker.

The current investigation has been carried out in three different phases. First of all the anti-inflammatory and anti-arthritic effect of methanolic fraction of *Mikania cordata* were studied along with some biochemical parameters related to anti-inflammatory actions. In the later part of this phase, attempts were made to isolate and identify at least the qualitative nature of the active principle(s) responsible for anti-inflammatory action. In the second phase, antiulcer property of the root extract was investigated and the last phase was associated with studies on other pharmacological actions of *M. cordata* root ext.(c.N.S, blood pressure, isolated smooth and skeletal muscles
and acute toxicity).

Although ideally it is always desirable to cover all aspects in a detailed around fashion in any scientific investigation certain interfering factors like limited time, resource and facilities compelled the present worker to stop at a definite point. However the present work is expected to contribute significantly (at least in part) towards development of an effective drug principle from herbal source in near future.