2. AIM OF THE STUDY

The herbal medicines are effective in the treatment of various life threatening diseases. Very often these drugs are unscientifically exploited and/or improperly used. Therefore, these plant drugs deserve detailed studies in the light of modern science. The detailed investigation and documentation of plants used in to control health traditions and pharmacological evaluation can lead to the development of invaluable plant drugs for many dreaded diseases.

Plant is used as a traditional medicine to relieve pain and insomnia. Earlier studies have reported the presence of alkaloid, flavonoid, tannins, phenols and steroids in *Tecomaria capensis*. When reviewed literature it was found that not much evaluation of such kind were carried out in the leaves for the therapeutic potential. So the present study is aimed to scientifically explore the leaves of plant for its safety and efficacy. Medicinal plants, herbs, spices and herbal remedies are known to Ayurveda in India since long times. The value of medicinal plants, herbs and spices as herbal remedies is being lost due to lack of awareness, and deforestation. The result is many valuable medicinal herbs are becoming rare and precious information is lost. Less pollution we make, more ecological balance we maintain, will add to happiness of humankind. Preserve the knowledge of medicinal plants, herbs, spices and herbal remedies, which humankind has received from the past generations, for posterity.

- To select and authenticate leaf of *Tecomaria capensis*.
- To study the pharmacognostical and physicochemical parameters.
- To prepare different extracts of leaves of *Tecomaria capensis* and subjected them to preliminary phytochemical analysis.
- To subject the selected extract for isolation of bio markers.
- To investigate acute and sub acute toxicity of selected extracts to asses the safety profile of extracts.
- To investigate he extracts on analgesic, anti inflammatory, anti ulcer, hepatoprotective, CNS and cytotoxic activity.
- To study the effect of extracts on anti-microbial activity.
- To evaluate the efficacy of isolated bio markers on cytotoxic and anti inflammatory potential.