2. AIM AND SCOPE OF PRESENT WORK

Plant materials are used throughout developed and developing countries as home remedies, over the counter drug products and as the raw materials for the pharmaceutical industry. Since they represent a substantial proportion of the global drug market, it is vital to assess their quality by recognised guidelines that exist. There is also a need to screen more plants for their useful activity. This will enable for further study in the identification of the plant, isolation of phytoconstituents and in carrying out biological evaluation and in proper usage and administration of the same.

Present work is aimed at study of two drugs namely *Macrotyloma uniflorum* (Lam.) Verdc. and *Plectranthus amboinicus* (Lour.) Spreng.

Such studies will promote global acceptance and international recognition of herbal plants of India, which in turn will contribute to the suffering human society in curing various ailments.

Kidney stones have afflicted humankind since antiquity. The prevalence of urinary tract stone disease is estimated to be 2% to 15%. Urolithiasis is an entity, which has high morbidity and socio-economical impact, and low mortality. Urinary stones were a major health problem in developed countries until the 1980s, with a significant proportion of patients requiring extensive surgical procedures and a sizeable minority losing a kidney (Leonardo R. Reyes Rabanal, 2006). The use of allopathic drugs like allopurinol for uric acid and calcium oxalate stone prevention has been a matter of debate because of its side effects including nephrotoxicity (Martindale, 2002). The literature survey revealed herbal remedy for this
disorder. The extract of edible plant *Trianthema monogyna* and the pulse of *Macrotyloma uniflorum* (Lam.) Verde, have been reported to be effective in the inhibition of calcium oxalate crystallization (Ishwar Das *et al.*, 2005). The leaves of the plant *Plectranthus amboinicus* (Lour.) Spreng., has been used for renal and vesical calculi (Varier, 1997). The fresh juice of the leaves of *Plectranthus amboinicus* (Lour.) Spreng., was also reported to possess antilithiatic activity against ethylene glycol induced urolithiasis in rats (Alvin Jose *et al.*, 2005).

Hence it was proposed to investigate *Macrotyloma uniflorum* (Lam.) Verde. and *Plectranthus amboinicus* (Lour.) Spreng., for their pharmacognostical, phytochemical and antiurolithiatic activity.

**The Plan of Work:**

a) Collection and authentication of plants *Macrotyloma uniflorum* (Lam.) Verde. and *Plectranthus amboinicus* (Lour.) Spreng.

b) Pharmacognosical studies on seeds of *Macrotyloma uniflorum* (Lam.) Verde. and *Plectranthus amboinicus* (Lour.) Spreng.

e) Extraction.

d) Preliminary qualitative phytochemical analysis.

e) Isolation and characterization of the phytochemical constituents from *Plectranthus amboinicus* (Lour.) Spreng.

f) Antiurolithiatic activity of methanolic extract of *Macrotyloma uniflorum* seeds and *Plectranthus amboinicus* entire plant.