

# **CHAPTER 3**

## **OBJECTIVE AND PLAN OF WORK**

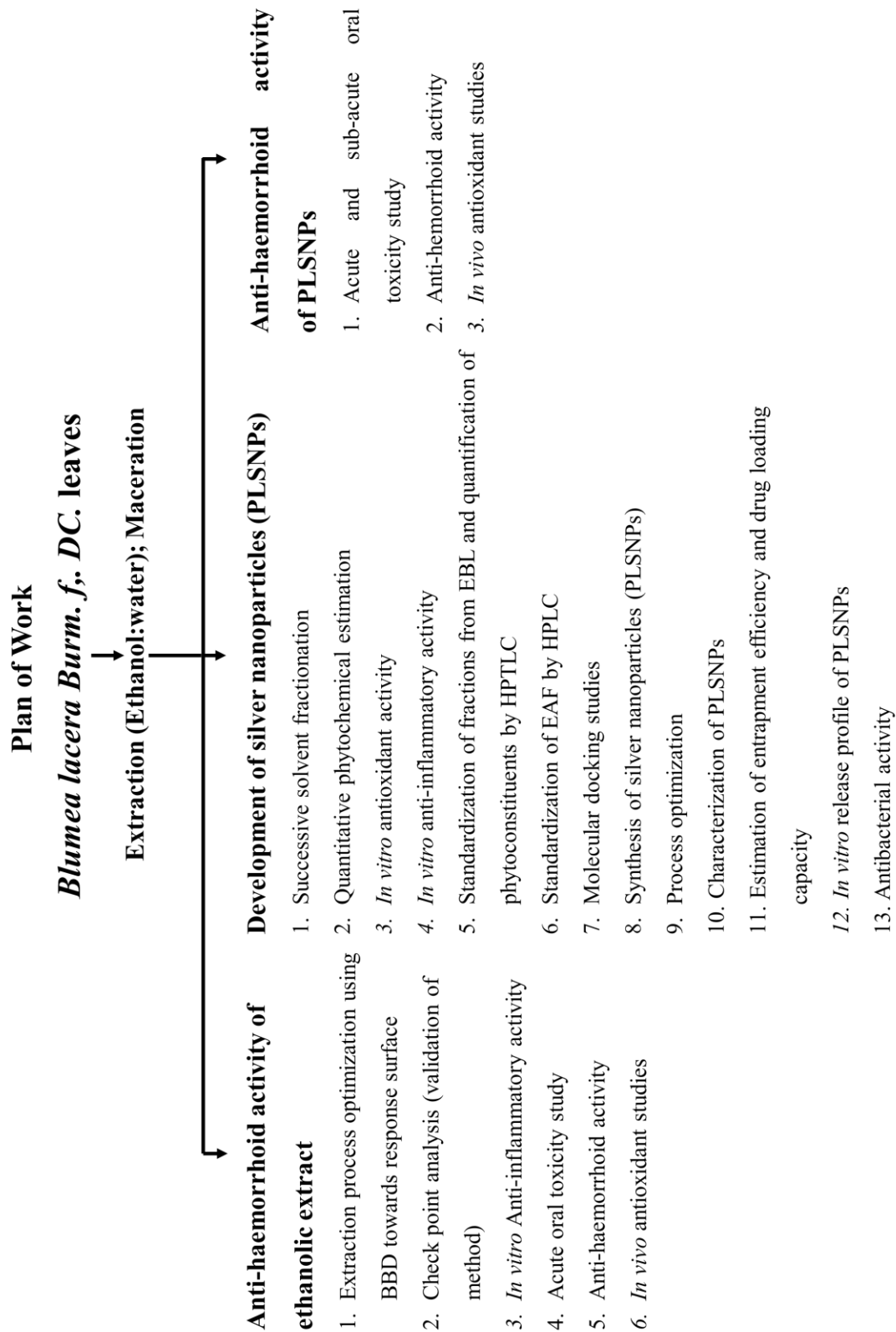


### 3. Objective of Study

From the above discussion it is clear that hemorrhoids are very common problem and number of patients suffering from hemorrhoids is increasing all over the globe. So, there is a need to assess medicinal plants for their anti-hemorrhoid potential as plants are considered as relatively safe as compared to the modern synthetic drugs. The search will prove more beneficial for people in developing countries where still eighty percent people rely on medicinal plants for their primary health care. According to Bhaavaprakaasha, the herb (*Blumea lacera*) can cure fever, bronchial infections, vitiated blood [43]. Traditionally, it is used internally and externally as a styptic and anti-inflammatory agent. The juice of leaves is mixed with black pepper (*Piper nigrum*) & given to cure bleeding piles. This herb is also given as anthelmintic, particularly for threadworm. Leaves and roots are used as astringent, diuretic and febrifuge [30]. Bruises and ulcers can also be treated by applying fresh juice or extract [29]. Therefore, the present work is designated to evaluate the medicinal plant *Blumea lacera* (*Burm.f.*) DC. for its anti-hemorrhoid potential in its crude as well as in nanoformulations.

The objectives of present investigation are as follows:

- **Objective 1:** Extraction process optimization, standardization and evaluation of anti-haemorrhoid activity of the ethanolic extract of *Blumea lacera*.
- **Objective 2:** Pre-formulation and *in silico* studies, development of bio-fabricated silver nanoparticles for *in vitro* anti-inflammatory and antibacterial activity.
- **Objective 3:** Evaluation of oral acute and sub-acute toxicity and *in vivo* anti-haemorrhoid potential of bio-fabricated silver nanoparticles.



**Figure 3. 1:** Scheme of study flow.