Chapter 3

Plan of Work
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3.1 Schematic diagram of the plan of work

Fig 3.1 Schematic diagram of the plan of work
Design of the Study

3.2 Detail research plan:

The proposed research work will emphasize on the following:

- **Identification and collection of plant:** The plants were selected according to their utilization in siddha system of medicine. Most abundantly available plant that can be procured from the local areas were selected and collected for the study.

- **Authentication of the plants:** The collected plants were authenticated by Botanist.

- **Extraction of the plant material:** The authenticated parts of the plants were dried under shade and powdered. The crude powder materials were exhaustively extracted in a Soxhlet apparatus using ethyl alcohol.

- The study design comprises of **Total extract, chloroform fractionation of extract and formulation of total extract**.

- Total extract is prepared by using 70% ethyl alcohol. Fractionation done by using chloroform. Formulation is done by dissolving total extract in ‘Amuri.’

- **Preparation of Amuri:** Amuri is a primordial liquid elixir obtained from plantain tree named *Musa paradicica* through a special process. Amuri, Muppu and Guru are highly acclaimed preparations in Tamil Siddha tradition. It is mentioned in the literature that without these, the preparation of any medicine, the efficacy of any drug or the accomplishment of Kaya Karpam is incomplete.
- **Animals:** All animal experiment will be performed in accordance with Institutional Animal Ethical Committee guidelines (IAEC-XIV/ SRU/100/2008).

- The oral acute toxicity studies were not conducted on reported plants *Indigofera tinctoria* and *Inula racemosa*. Acute oral toxicity study was conducted for *Sida cordata* according to the [OECD test guideline 423](#)-Acute toxic class method.

- **Pharmacological Studies:** Pharmacological screening done by available and current methods for both *invivo* and *in vitro* models.

- **Statistical analysis:** Data are expressed as mean ± SEM. All data were analyzed using student ‘t’ test, one-way analyses of variance (ANOVA), followed Dunnett’s Multiple Comparison Test as post hoc. P value < 0.05 was considered to be statistically significant.