Hypothesis & Objectives
HYPOTHESIS AND OBJECTIVES

Central research question

- Do Pterocarpus santalinus harbor endophytes?
- Will inoculation with fungal endophyte and endomycorrhiza lead to colonization and alter growth and production of immunemodulating bioactive factors in C.asiatica?

Hypothesis

- Successful inoculation with fungal endophytes and endomycorrhiza will result in enhanced growth and improved production of immunemodulating bioactive factors in C.asiatica.

Objectives

- Evaluating the immunemodulating potential of triterpenoidal saponins of C.asiatica in immunesuppressed male Wistar strain albino rats.
- Isolation of fungal endophytes from Pterocarpus santalinus, an endemic medicinal plant to Tirumala hills.
- Phenotypic and molecular characterization of fungal endophytes by PCR amplified 18S rDNA sequence analysis.
- Inoculating the C.asiatica with endophytic organism (mono-culture) and endomycorrhiza (co-culture) for improving the production of triterpenoidal saponins.
- Extraction and quantification of triterpene saponins from individual, consortium treated and un-inoculated C.asiatica plants to evaluate their effect in enhancing triterpene saponins production.