2. AIM AND OBJECTIVES

Aim

To identify and isolate the active compounds from traditionally used medicinal plants against tuberculosis

Objectives:

- To assess the antimycobacterial activity of selected medicinal plants against *M. tuberculosis* H₃₇Rv and clinical isolates of *M. tuberculosis* using rapid method; Luciferase Reporter Phage (LRP) assay *in vitro*

- To isolate the active fractions from promising medicinal plants against *M. tuberculosis* by bioassay guided fractionation using different chromatographic techniques

- To characterize the structural details of the active principle(s) using HPTLC, UV IR, and NMR

- To study the MIC of the active principle against clinical isolates of *M. tuberculosis* with varying resistant pattern.

- To carry out toxicity studies of active molecules using Vero cell lines

- To dock the isolated compounds against the available drug targets of *M. tuberculosis* by *in silico* analysis