CHAPTER 3
AIM AND OBJECTIVES

PURPOSE OF THE STUDY

To provide basic scientific validation for the aqueous extract of *Cynodon dactylon* in the treatment of STZ induced diabetic rats.

IDENTIFICATION OF STUDY LACUNAE

Very few studies have been reported on the biochemical analysis of *Cynodon dactylon* extract. Correlation of biochemical findings with the histopathological changes in the tissues of liver and pancreas of STZ diabetic rats by this extract was not reported in the literature.

AIM

To assess the effect of aqueous extract of *Cynodon dactylon* in the treatment of diabetes, on blood glucose level and their possible effect on pancreatic tissue histologically. Also to investigate the Hepatoprotective effect of aqueous extract of Cynodon dactylon in diabetic induced rats.

OBJECTIVES

The main objectives of the study are,

- To Perform Preliminary Phytochemical screening of aqueous extract of Cynodon dactylon
- To assess Invitro antidiabetic and antioxidant activity of aqueous extract of Cynodon dactylon.
- To perform HPTLC Fingerprinting of aqueous extract of Cynodon dactylon.
To assess In vivo antidiabetic and antioxidant potential of Cynodon dactylon aqueous extract.

To observe the histological changes in the pancreatic and liver tissues of the control and treated group of animals and correlation with the obtained biochemical findings/results.

To estimate the biochemical parameters like Serum glutamate pyruvate transaminase (SGPT), Serum glutamate oxaloacetate transaminase (SGOT), Alkaline phosphatase (ALP), Total Protein (TP), Lipid profile (LDL, HDL, VLDL, TC, TG), HbA1c (Glycosylated haemoglobin) and Plasma Insulin levels in the control and treated group of animals.