Chapter 2

AIM & OBJECTIVES
2. AIM AND OBJECTIVES

2.1. Aim
To study whether naringin attenuates diabetes by modulating the expression of PDX-1 and FoxM1 transcription factors in beta cells of diabetic rats.

2.2. Objectives
- To establish the experimental model of diabetes using STZ
- To analyze insulin, Pdx-1 and FoxM1 gene expressions in the pancreas of normal and diabetic animals and compare it with the naringin treated diabetic animals.
- To analyze the expression of PDX-1 and FoxM1 proteins in the pancreas of untreated and naringin treated diabetic animals by western blot.
- To observe the localization of PDX-1 and FoxM1 proteins in the beta cells by immunohistochemistry.
- To study the changes in beta cell number in naringin treated diabetic animals through morphometric analysis.
- To compare the histological and ultrastructural changes in the pancreas of untreated and naringin treated diabetic rats.
- To observe the difference between blood glucose, serum insulin, urea, creatinine and lipids levels of untreated and naringin treated diabetic animals.
- To assess the antioxidant status in the pancreatic tissues of naringin treated animals.