Chapter 3

Aim and Objectives

The aim of the present work was to develop a novel oral nanoemulsion-based drug delivery system of antidiabetic drugs.

The objectives of the study were:

i. To develop an accurate, specific, repeatable and stability-indicating HPTLC method for the determination of repaglinide in the presence of its degradation products and related impurities for assessment of purity of bulk drug and stability of its bulk dosage forms.

ii. Formulation development and \textit{in vitro} characterization of nanoemulsion formulations.

iii. To evaluate the \textit{in vivo} antidiabetic activity of the nanoemulsion using experimental diabetic rat model.

iv. To perform stability study on optimized formulations over a period of 3 months at accelerated conditions.