CHAPTER - 2

OBJECTIVES

The main objective of the present investigation is based on the hypothesis to develop a low dose maintenance therapy of atypical antipsychotics, to minimize the risk of major side effects, improve the patient compliance in psychotic patients and cost effectiveness. The present study, therefore aims at exploiting the potential of TDDS for sustained delivery of risperidone and olanzapine which includes:

- To carry out preformulation studies, validation of analytical method used and drug excipient interaction studies of risperidone and olanzapine for development of transdermal therapeutic system for schizophrenics

- To design and develop TDDS using risperidone and olanzapine and to study formulation factors including varying ratio of ERL 100 and ERS 100 as matrix formers with different concentrations of permeation enhancers

- To compare the efficiency of synthetic and natural permeation enhancers using \textit{in vitro} release and \textit{in vitro} skin permeation studies

- To assess the therapeutic efficacy and safety of optimized TDDS using \textit{in vivo} experimental techniques using intact animals

- To study the pharmacokinetics of developed TDDS

- To study stability of developed TDDS

- Statistical analysis of \textit{in vitro} and \textit{in vivo} data