PLAN OF WORK AND METHODOLOGY:

- Literature survey and selection of drug candidate
- Procurement of drug and excipients for preparation of pellets.
- Characterization of drug:
  - IR spectra, melting point using capillary method, DSC etc.
  - Determination of $\lambda_{\text{max}}$ of drug and preparation of Calibration curve of drug by suitable method of analysis.
- Compatibility studies with the excipients using DSC.
- Preliminary studies on formulation of pellets by Solution/suspension layering method using different polymer.
- Design and evaluation of Zolpidem tartarate Coated pellets formulations.

A. Scheme of design (Preliminary study):

- Fluid bed coating:
  1) Formulation of drug loaded pellets
  2) Formulation of sub-coated pellets
  3) Formulation of Eudragit NE 30 D coated pellets.
- Optimization of modified release formulation of zolpidem tartarate by varying ingredient and its amount.

B. Physical evaluation and assay of optimized formulation.

1. Micromeritic properties:
   - Bulk density.
   - Tapped density.
   - Angle of repose.
   - Friability Determination.
   - Hausner ratio.


3. Floating behavior of pellets.

C. In-vitro Dissolution studies of pellets.

- Stability studies as per ICH guidelines.