PLAN OF WORK AND METHODOLOGY

1. Review Literature:
   Related to Drug Profile, International and National Journals.

2. Characterization and identification of the drug:
   Characterization and identification will be carried out by official monographs given in IP and IR.

3. Preformulation Study:
   a. Solubility.
   b. Partition Coefficient.
   c. Melting point.
   d. Permeability Characteristics of polymers
   e. Polymer-skin compatibility
   f. Differential Scanning Calorimetry (DSC)

4. Preparation of different formulations:
   a. By using different polymers with using plasticizers.
   b. Optimization of the formulation.

5. Evaluation parameters of the optimized formulation:
   I. Physico-chemical evaluation:
      a. Physical appearance.
      b. Folding endurance.
      c. Thickness of the film.
      d. Weight uniformity.
      e. Drug content.
      f. Percentage moisture uptake.
      g. Percentage moisture content.
      h. Skin irritation test.
i. Scanning Electron Microscopy (SEM).

II. *In vitro* skin permeation study:
   1. By using diffusion cell.

III. *In vivo* evaluation of transdermal patches:
   1. Acute hypoglycemic activity using albino rats of either sex.

IV. Stability studies according to ICH guidelines.