PLAN OF WORK

1) Literature survey

2) Procurement of drug and material

3) Drug standardization

4) Preparation of standard curve of drug

5) Formulation of medicated patches

6) Optimization of formulation

7) Evaluation of medicated patches
   - Weight variation
   - Folding indurance
   - Area variation
   - Content uniformity

8) Release rate studies

9) Stability studies

METHODOLOGY

Literature survey

This will be continuous process from starting to finalization of the work. The sources utilized would be Journals including National and International, Patent and internet.

Procurement of drug and material

Procurement of material from a reliable source and check cautiously as per the need.

Preparation of standard curve of drug
Standard curve of drug prepared using phosphate buffer solution.

**Formulation of medicated patches**

There are various approaches in formulating transdermal drug delivery systems such as, membrane permeation controlled transdermal drug delivery system, adhesive dispersion type transdermal drug delivery system, matrix dispersion type transdermal drug delivery system, microreservoir dissolution controlled transdermal drug delivery systems.

**Evaluation of medicated patches**

Evaluation of medicated patches for physical and mechanical properties.

**Release rate studies**

This study carried out by diffusion cell apparatus. The aim of in vitro experimentation in transdermal drug delivery system is to understand and predict the delivery and penetration of molecule from the skin surface into the body via the skin of animal.

**Stability studies**

All the films expose to various temperature in different hot air oven. Transdermal patches will keep in oven. The patch samples further analyze for physical parameter and drug content.
MATERIALS AND METHODS

SOURCE OF DATA-

The primary data will be collected by conducting various experiments and investigations in the laboratory and recording the observations. The secondary data will be collected by referring various national and international journals, books, pharmacopoeia’s and professional websites like Helinet, Pubmed etc.

METHOD OF COLLECTION OF DATA AND EVALUATION

1. Instruments like diffusion cell, dissolution test apparatus, UV Spectrophotometer will be used to record the observations.
2. Drug-polymer interaction will be investigated by using analytical techniques such as DSC, FT-IR etc.
3. Transdermal drug delivery systems will be prepared using different polymers or in different drug-polymer ratios by adopting suitable techniques.40
4. The drug and it’s transdermal drug delivery systems (Transdermal patches) shall be characterized for their physico-chemical properties using standard techniques.
5. In vitro release profiles of drug in simulated physiological fluid will be studied using USP dissolution apparatus and ex vivo diffusion study will be studied using Franz diffusion cell. The data shall be analyzed statistically and kinetics of drug release shall be studied.