The objectives and plan of the investigation are as follows:

1. To enhance the solubility, dissolution rate, dissolution efficiency and oral bioavailability and formulation development of three relatively newer drugs belonging to anti hypertensive category namely (i) Valsartan (ii) Irbesartan and (iii) Telmisartan.

The following two techniques will be tried for the above.

(i) Cyclodextrin complexation using β- cyclodextrin and hydroxyl propyl β- cyclodextrin with and without surfactants (SLS/Tween 80/Poloxamer)

(ii) Solid dispersions in water dispersible excipients such as superdisintegrants and modified starches.

2. Studies in cyclodextrin complexation:

(i) Phase solubility studies to study the complexation phenomena

(ii) To evaluate the individual and combines effects of CDs and surfactants on the solubility and dissolution rate in a series of $2^2$ – Factorial studies in case.

(iii) To prepare solid inclusion complexes of drug- CD- Surfactant by kneading and freeze – drying methods and to evaluate them by DSC, XRD, FTIR and dissolution rate studies.

3. Studies on Solid dispersion Techniques:

(i) Solid dispersion of the selected drugs in modified starches/ Superdisintegrannts such as starch citrate, starch phosphate, Primogel, cross-povidone etc., will be prepared in different ratios of drug : excipients.

(ii) The dispersions prepared will be evaluated by XRD, DSC and dissolution rate studies.

(iii) The effects of other added excipients such as PVP, PEG, Poloxamer on the dissolution rate of the drugs from the solid dispersions will be evaluated in $2^2$ and $2^3$- factorial experiments.

4. Analytical method (UV & HPLC) development and validation studies on the selected drugs.

5. Formulation development studies on the selected drugs employing best CD complexes and dispersions in modified starches.

6. Stability studies on selected best formulations as per ICH guidelines.

7. Bioequivalence studies/invitro-invivo correlations.