4. PLAN OF WORK

The project was carried out in the following stages

Stage 1: Literature survey

Stage 2: Selection of herbal extracts and phytoconstituents

Stage 3: Analytical method development and validation
  • Analytical method development
  • Validation of the developed method

Stage 4: Standardization of herbal extracts and phytoconstituents.
  • Quantification of herbal extract
  • Forced degradation studies for phytoconstituents

Stage 5: Biopharmaceutical classification system for herbal extracts and phytoconstituents
  • Solubility studies for herbal extracts and phytoconstituents
  • Permeability studies for herbal extracts and phytoconstituents
  • Classification of herbal extracts and phytoconstituents into BCS.

Stage 6: Physical modification approach for enhancing solubility and permeability
  • Preparation of poly herbal nano crystals (NC)
  • Preparation of poly herbal solid lipid nano particles (SLN)
  • Solubility studies for physically modified poly herbal nano crystals and solid lipid nano particles
  • Permeability studies for physically modified poly herbal nano crystals and solid lipid nano particles
  • Categorization of physically modified poly herbal NC/ SLN into biopharmaceutical classification system.
Stage 7: Formulation of poly-herbal immediate release tablets.
  • Preparation of poly herbal immediate release tablets (IR)
  • Preparation of poly herbal nano crystals immediate release tablets (NCIR)

Stage 8: Development of dissolution method
  • Selection of dissolution media
  • Determination of stability of dissolution media
  • \textit{In vitro} studies for IR and NCIR

Stage 9: Bio-analytical method development and validation
  • Analytical method development
  • Validation of the developed method

Stage 10: Pharmacokinetic studies in rabbits