Work plan and methodology

1. Literature review
   To perform literature survey of pharmaceutical drugs physicochemical properties, dosage forms, dose strengths and pharmacokinetic profile of interested drug molecules. Also search method for pharmaceutical drugs in published journals regulatory guidelines.

2. Solubility of drug
   Determine the solubility of pharmaceutical drugs in different solvent, pH and pKa of the selected drug molecules.

3. Instrumental parameter optimization
   During the development of analytical method different instrumental parameters will be optimized. Information on Drug molecular weight, physicochemical properties etc. Tuning of molecule in mass for determination of Q1 and Q3 values for drug and internal standard.

4. Optimization of Chromatographic parameter
   Chromatographic procedure includes the selection of Column, mobile phase and compositions of solvents for separation, flow rate.

5. Optimization of Extraction procedures
   Separation of drug from biological matrix by using extraction techniques like,
   - Liquid-Liquid Extraction
   - Solid phase extraction:
   - Precipitation method

6. Validation of the developed methods
   Bioanalytical method validation (BMV) will be done by using different regulatory guidelines such as USFDA, ANVISA, WHO, MHRA. Bioanalytical validation parameters are as given below,
   - Selectivity
   - Sensitivity
   - Calibration range
- Linearity
- Carryover check
- Accuracy
- Precision
- Extraction efficiency (Recovery)
- Dilution integrity
- Reproducibility

The developed method may be employed for further research in pharmaceutical field. They should be greatly useful for routine drug analysis of same or any of the class of compounds.