

## **OBJECTIVES**

The objective of the present work is an attempt to develop the nanosuspension of the hydrophobic anti-inflammatory drug Ibuprofen, using nonbiodegradable polymer and stabilizer in order to enhance its solubility by applying nanonization.

### ***Plan of research work***

1. Characterization of drug by FTIR and DSC
2. Identification and confirmation for purity of drug
3. Preformulation studies of drug
4. Preparation of standard calibration curve of drug
5. Experimental designing for preparation of Nano-drug delivery system
6. Evaluation parameters
  - Solubility studies
  - Drug particle size analysis by particle size analyzer or SEM
  - *In vitro* dissolution studies
  - Statistical pharmacokinetic analysis of *invitro* data.
7. Stability studies of nanoparticles as per ICH guidelines.