WORK PLAN AND METHODOLOGY:

- Literature survey.
- Selection and standardization of one drug from corticosteroid category and another drug from vitamin D3 analogue.
- Selection, procurement and standardization of excipients.
- Preparation of physically stable ointment base.
- Preparation of product by conducting formulation trials and optimization of the product comprising of one vitamin D3 analogue and one corticosteroid.
- Analytical method development (HPLC) for developed formulation. A suitable HPLC method will be developed for simultaneous estimation of drugs present in the formulation.
- Physicochemical characterization of developed formulations for appearance, texture and assay.
- *In-vivo* screening of Antipsoriatic potential using oxazolone induced contact dermatitis model may be carried out (if possible):
  In-vivo screening of Antipsoriatic potential will be carried out using female BALB/c mice (20-25gm). The effectiveness of the formulation will be studied using oxazolone-induced contact dermatitis animal model. Female BALB/c mice will be sensitized by the application of Oxazolone to the abdomen then ears will be rechallenged with oxazolone in a mixture of acetone and olive oil (4:1) every 3rd day. Antipsoriatic activity will be evaluated in terms of suppression in the ear thickness and histopathological study. Ear thickness is an index of skin inflammation is measured using a Digimatic Micrometer, 72h after each application of oxazolone. The test products shall be applied to both sides of the ear 30 min before and 3 h after each application of oxazolone. Mouse ears will be excised 72h after the last application of oxazolone and will be fixed in 10% - buffered formalin solution, embedded in paraffin, cut into 5-μm sections, stained with hematoxylin-eosin, and then assessed under light microscopy.

- Stability studies:
Stability studies of developed formulations will be carried out as per ICH guidelines. At following storage conditions viz. refrigeration (2-8°C), 30°C ± 2°C/65% RH ± 5% RH and 40°C ± 2°C/75% RH ± 5% RH over a period of 6 months. The samples stored at different storage conditions will be withdrawn periodically and analyzed for physical and chemical stability.