2.0. AIM & OBJECTIVES

2.1. Aim
The main intention of the present study was to provide morphological, histological evidence and an explanation for the biochemical, molecular and cellular mechanisms involved in the wound healing properties of the traditional medicines (i.e., Honey, Ghee, GG, and NI) singly and combined. It was observed in both normal and diabetic conditions thereby providing valuable evidence to prove the efficacy of our Indian traditional medicinal system – Ayurveda and folk medicine.

The outcome of the study also aimed to provide an insight into the wound healing process itself which may lead to the development of new and more efficient drugs and treatment strategies to deal with the medically challenging wounds.

2.2. Objectives
To evaluate the role of these medicinal preparations on the process of wound healing in both normal and diabetic conditions using the rat models by assessing the following objectives:

1. Alteration in the biomechanical force by determining the breaking strength in the incision wound model and rate of closure of wound in the excision wound model
2. Histological alterations by evaluating the changes in the epithelialization, fibrosis, neoangiogenesis, and inflammatory status
3. Inflammatory activity at the wound site – by assessing the expression of interleukins (IL-1)
4. The activity of the myofibroblasts at the wound site
5. Alterations in the ECM composition of collagen and measurement of oxidative stress by biochemical studies

6. Alteration in the expression of the growth factors such as TGF-β, FGF-2, PDGF, and VEGF at the wound site during healing

7. Survival and proliferation of the dermal fibroblasts and keratinocytes using in vitro culture models