The use of herbal medicine for the treatment of various ailments came into existence long before the modern medicine. Even now, a large number of the inhabitants of the world still rely on herbal medicine. In fact, most of the currently available therapeutic agents have been derived directly or indirectly from plants. Moreover, with the advent of many new diseases and their resistance to the presently available drugs, many new plants are being screened for their therapeutic properties; however, still many are unexplored and *Eremurus himalaicus* is one such plant. Thus, in the present study, the plant *Eremurus himalaicus* has been selected for assessment of its possible therapeutic potential. The present day health concerns have been taken into account and the activities that have been looked upon include anti-oxidant activity, anti-microbial activity, anti-inflammatory activity, anti-hepatotoxic activity and anti-hyperlipidemic activity. Moreover, acute toxicity testing along with phytochemical and physicochemical analysis was also performed.

In the first step of the study, the phytochemical screening of the petroleum ether, ethyl acetate, methanolic and aqueous extracts of *Eremurus himalaicus* was performed and the secondary metabolites that were found to be present includes alkaloids, flavonoids, phenolics, tannins, saponins, cardiac glycosides and terpenes. The presence of these phytochemicals suggests that this plant may have promising pharmaceutical applications. The various physicochemical parameters were also determined which includes organoleptic properties, loss on drying, acid insoluble ash value, water soluble ash value, total ash value, residue on ignition and pH value at 5% and 10% dilution. The values that were observed for these parameters may be set as the standard values which may be employed in its quality control.

For the determination of antioxidant potential total phenolics content, total flavonoids content, DPPH assay, $\text{H}_2\text{O}_2$ scavenging assay and total reduction capability assay were carried out. The most of these assays revealed that the methanolic extract of *Eremurus himalaicus* has most potent antioxidant activity. The potential may be considered as moderate to good in preventing oxidative damage. This was followed by determination of antimicrobial activity which did not show much promising results. The acute toxicity testing was performed as per OECD guidelines no 425 and the extracts of *Eremurus himalaicus* were found to be safe.
The anti-inflammatory activity was assessed by carrageenan induced rat paw edema test and croton oil induced mice ear edema test. In both the tests, the methanolic extract of *Eremurus himalaicus* was found to be highly potent in decreasing the edema. Antihyperlipidemic activity was evaluated by assessing the effect of extracts on TC, TG, HDL-C, LDL-C and VLDL-C levels. The liver tissue samples were evaluated for histopathological changes. The results showed that the ethyl acetate extract of *Eremurus himalaicus* was highly effective in decreasing the physical as well as biochemical changes caused by hyperlipidemia. For the assessment of antihepatotoxicity, the effect of extracts on serum glutamic oxaloacetic transaminase (SGOT) or AST, serum glutamic pyruvate transaminase (SGPT) or ALT, alkaline phosphatase (ALP), total proteins (TP), bilirubin and uric acid (UA) levels was measured. The liver tissue samples were analyzed for histopathological changes. The results revealed that the methanolic extract of *Eremurus himalaicus* displays significant hepatoprotective activity against carbon tetrachloride induced hepatotoxicity, as was evident from the effect of the extracts on the liver marker enzymes and other biochemical parameters and liver histopathology.

Thus, it may be concluded from the present study that the plant, *Eremurus himalaicus*, is a neglected plant which otherwise has very promising medicinal properties. Further studies are suggested to isolate and structurally characterize the bioactive components. Also, the mechanism and the possibility of synergism between the active compounds of this plant must be studied.