

## GENERAL ABSTRACT

Alcohol abuse is a very common practice (just like in many other parts of the world) in Nkonkobe Municipality, Eastern Cape Province, South Africa. This is associated with liver disease. An ethnobotanical survey of plants used for the treatment of alcohol-induced liver damage in Nkonkobe Municipality was conducted. During the survey and also from information gathered in the literature, *Pelargonium reniforme* Curtis, was prominently mentioned, among other plants, as the species used generally for the treatment of alcohol-induced liver damage. This project was designed to evaluate the effects of the plant on alcohol-induced liver damage, including its antioxidant and antimicrobial properties. It also involves safety evaluation studies to determine if the plant is safe for consumption.

Studies using rats of the Wistar strain were carried out to determine the protective and curative effects of *P. reniforme* on alcohol-induced liver damage. Results obtained showed that the plant extract can protect the liver cells as well as enhance recovery from tissue damage. The plant also showed good antimicrobial and antioxidant activity and this further validates its use in the treatment of liver diseases. Safety evaluation studies of the extract were carried out by investigating the effects of the oral administration on some haematological and biochemical parameters in male Wistar rats. The results obtained from the study suggest that the plant extract is not toxic at the doses used and is therefore safe for medicinal uses.

The results of the various bioassays carried out in this project have justified the traditional uses of *P. reniforme* for the treatment of alcohol-induced liver damage.