SUMMARY & CONCLUSION

“Administration of different extracts of *Madhuca indica* showed significant reduction in biochemical parameters in STZ induced diabetes. This observation indicates that *Madhuca indica* enhances insulin release from destroyed pancreatic β-cells, either by regenerating the partially destroyed pancreatic beta cells or by the release of insulin stored in the granules. Diabetic rats treated with *Madhuca indica* significantly decreased the serum cholesterol and triglyceride level. Since insulin is a major hormone regulating lipid metabolism, *Madhuca indica* facilitated stimulation of insulin secretion in STZ rats will help overcome lipid metabolism abnormalities”

Oral administration of *Madhuca indica* showed significant reduction in biochemical parameters in STZ induced type II diabetes”.

“In type II diabetes the β-cells are in intact when compared to type-I diabetes. These findings demonstrated the probable mechanism of action that, enhancement of the sensitivity of target tissues to circulating insulin, might be related to lowering the plasma triglycerides. Increase of glucose uptake in the presence of insulin suggests the possibility of increased binding of insulin to receptors or increase in the number of insulin receptors. *Madhuca indica* may be useful in the treatment of diabetes”.

“Animal’s model such as Maximum electroshock, Pentylenetetrazole, Strychnine, Picrotoxin, lithium-pilocarpine tests, is assumed to identify anticonvulsant drugs effective against generalized tonic-clonic partial seizures and generalized clonic seizures respectively”.

In Pentylenetetrazole induced convulsion model & Maximum electroshock induced convulsion, methanolic extract (200, 400 mg/kg) of *Vitex.negundo* “offered protection against mortality in dose dependent manner”.

In “strychnine induced & Picrotoxin convulsion model *vitex.negundo* delayed the onset of clonic and tonic convulsions when compared to control and standard drug at dose levels of 200 mg/kg and 400mg/kg. *Vitex.negundo* diminished the intensity of
seizures in lithium-pilocarpine induced seizures. Studies are required to investigate the effect of these extracts on sodium channels, T-type sodium channels and on glutamate receptors to propose the mechanism of action of these drugs”.

Different formulations of vitex.negundo were prepared using direct compression method. In order to select the best formulation various parameters were checked and subjected to Invitro dissolution studies. The lambda max of the agnuside was found to be 254 nm using methanol as blank. Agnuside release from the tablets depended on the disintegrants concentration used in the tablets. Based on $r^2$ values agnuside release from the tablets follows zero order kinetics. HPLC method was “carried out to estimate the amount of the drug present in the given sample of vitex.negundo leaf extract”.

In “conclusion, the findings of the present study suggest that the antihyperglycemic activity of Madhuca indica could be beneficial in treating diabetes”. Anticonvulsant activities of vitex.negundo leaf extract against different animal models were evaluated. The “stability study of the optimized tablets were carried out according to ICH guidelines at $40 \pm 2^0 \text{C}/75 \pm 5 \% \text{ RH}$ for six months by storing the samples in stability chamber. The optimized formulation (F3) is found to be stable for six months, since there was minimum significant change in the percentage amount of drug release”.