7. CONCLUSION AND FUTURE SCOPE

7.1 Conclusion

The present research was carried out to develop a bi-layer tablet of Losartan potassium containing an immediate release layer and a slow release layer.

In conclusion, LP loaded ERS/ERL microspheres was formulated by using two emulsification techniques (W/W and O/W) and six different formulation were formulated using different drug polymer ratio. Influence of both the formulation and process parameters in formulation of LP loaded microspheres was studied with respect to the size, size distribution, yield, entrapment efficiency and drug loading. Physical state analysis (crystalline or amorphous) and in-vitro characterization was carried out to evaluate the release characteristics of the drug from microspheres with respect to the pure drug in two different medias.

Super-disintegrant like sodium starch glycolate is used for the immediate release layer and Losartan potassium loaded microspheres prepared with eudragit by O/W emulsification method is used for the controlled release layer. In in-vitro dissolution study Bi-layer tablets showed an initial burst to provide the loading dose of the drug, followed by the controlled release for 24h, indicating a promising potential of the losartan potassium bi-layer tablet as a superior alternative to the conventional dosage form.
7.2 Future Scope

Due to limitation of time, various studies have not been completed which may be left for future study.

- To study the formulation and evaluation of a combination of sustained release microsphere and immediate release microsphere in a tablet formulation.

- Stability study in accelerated conditions and long term stability studies.

- In-vivo study in animals and IVIVC

- Pharmacokinetics studies by assessment of bioavailability by rapid analytical methods like HPLC, LC-MS etc.