

## CHAPTER VII

### CONCLUSION AND SCOPE FOR FUTURE WORK

This chapter discusses the findings and also identifies the area of future research arising from the present work.

#### 7.1 CONCLUSION

*Memecylon sisparens* Gamble leaves possess the bioactive phytoconstituents which can effectively scavenge the free radicals.

The identified phytochemicals are responsible for reducing the risk of oxidative stress and organ toxicities induced by drugs such as doxorubicin and cisplatin there by showing the protective mechanism.

*Memecylon sisparens* Gamble leaves ethyl acetate extract has shown the significant antibacterial activity along with the anti-cancer activity (triple negative breast cancer) thereby inhibiting the apoptosis pathway.

#### 7.2 DIRECTIONS OF FUTURE RESEARCH

- *Memecylon sisparens* Gamble leaves ethyl acetate extract could be suggested as dietary supplement. It might have greater significance in the prevention of oxidative stress related with the marketed drugs and there by finding a way in nutraceutical or functional foods.
- Due to its antioxidant, cardioprotective, nephroprotective, anti-cancer activities, *Memecylon sisparens* Gamble leaves will provide an accessible and cheap traditional medicine source for treatment of acute cardiotoxicity, acute nephrotoxicity and anti-cancer activity towards breast cancer in the developing countries.
- In future it would be of interest to investigate the combination effect of MSGLEAE with other anticancer drugs which may possibly result in reduction of the side effects caused by these drugs.
- As it is a medicinal plant from melastomataceae family, we can conserve this plant as its therapeutic activity was proved for the health care.
- The individual components need to be isolated and investigate for better activity of antibacterial, antioxidant and anticancer activity in the way of drug discovery process.