CONCLUSIONS
PART-1

ANTIHYPERLIPAEMIC ACTIVITY OF THE COMPOUND LM-1554

1) The compound LM-1554 was found to be poorly absorbed on oral administration (3-3.8% bioavailability).

2) The compound LM-1554 was found to be effective when given by oral route and not by parenteral route.

3) The antihyperlipaemic activity of the compound LM-1554 was less than that of gemfibrozil.

4) The compound LM-1554 was isolated unchanged 45.8% in faecal matter of rabbits.

5) QSAR study revealed the positive influence of electronic parameters. It was found that the substitution of electron withdrawing groups increases the activity of the compounds.

6) The increase in cholesterol level after oral administration of cholesterol to rats in blood collected from portal vein was found to be prevented by the compound LM-1554.

7) The compound LM-1554 acts as antihyperlipaemic agent by preventing absorption of cholesterol from gastrointestinal tract.
PART-2

LM-2616 : $\beta_1$-ADRENOCEPTOR ANTAGONIST WITH $\beta_2$-ADRENOCEPTOR AGONIST EFFECT

1) The compound LM-2616 was found to possess $\beta_1$-adrenoceptor antagonistic activity alongwith the $\beta_2$-adrenoceptor agonistic activity.

2) The local anaesthetic activity of the compound LM-2616 was comparable to lignocaine.

3) The median lethal dose (LD50) of the compound was found to be 480 mg/kg.

4) The compound M8 was found to be the most potent among all thirteen analogues of the compound LM-2616. It was found to have good $\beta_1$-adrenoceptor antagonistic activity, alongwith the $\beta_2$-adrenoceptor agonistic activity.

5) From structure-activity relationship study, it is concluded that for good $\beta_1$-adrenoceptor antagonist activity with $\beta_2$-adrenoceptor agonist activity, substitution at 4-position with secondary amine in parent structure is advisable.

6) Increase in carbon chain of amine at 4-position in parent molecule produces increase in $\beta_1$-adrenoceptor antagonist activity over $\beta_2$-adrenoceptor agonist activity.

7) Sterically hindered aromatic amine at 4-position in parent molecule causes increase in $\beta_2$-adrenoceptor agonist activity over $\beta_1$-adrenoceptor antagonist activity.