

## List of Tables

---

### List of Tables

- Table 1.** Classification of lipoproteins based on density and size
- Table 2.** Fredrickson classification of hyperlipidemias
- Table 3.** Modified Classification of hyperlipidemia (As per WHO)
- Table 4.** Classification of antihyperlipidemic drugs
- Table 5.** Ezetimibe (A Selective CAI) - drug profile
- Table 6.** Summary of results obtained by docking ezetimibe & **Ia–IIIa** with NPC1L1
- Table 7.** Summary of results obtained by docking ezetimibe & **Ib–IIIb** with NPC1L1
- Table 8.** Summary of results obtained by docking ezetimibe & **IVa–d** with NPC1L1
- Table 9.** Target compounds – planned for synthesis
- Table 10.** Target compounds synthesized (**Vi–xx**)
- Table 11.** Physical and spectral data for *o*-aminoester substrates (**Ii–iii**)
- Table 12.** Physical and spectral data for condensed 2-chloromethylpyrimidin-4(3*H*)-ones (**IIi–iv**)
- Table 13.** Physical and spectral data for condensed 2-(substitutedphenyl)aminomethylpyrimidin-4(3*H*)-ones (**IIIi–xx**)
- Table 14.** Physical and spectral data for 2-chloro-*N*-[4-oxo-condensedpyrimidin-2-ylmethyl]-*N*-substitutedphenylacetamides (**IVi–xx**)
- Table 15.** Physical and spectral data for condensed 2-(1-(substitutedphenyl)-4-oxo-azetidin-2-yl)-pyrimidin-4(3*H*)-ones (**Vi–xx**)
- Table 16.** Biological activity data (change in lipid profile of test animals effected) of condensed 2-(1-(substitutedphenyl)-4-oxo-azetidin-2-yl)pyrimidin-4(3*H*)-ones (**Vi–xx**)
- Table 17.** Comparison of the distances of the centroids of backbones of ligand **VIIIa** and ezetimibe from the amino acid residues of the active site
- Table 18.** Summary of results obtained by docking of ezetimibe & structures **VIIIa–d** with NPC1L1 protein
- Table 19.** Target compounds - planned for synthesis
- Table 20.** Target compounds synthesized (**VIIIi–xvi**)
- Table 21.** Physical and spectral data for aryl/heteroaryl hydrazides (**VIii–iv**)
- Table 22.** Physical and spectral data for *N'*-(substitutedbenzylidene)aryl/heteroaryl-

## List of Tables

---

- hydrazides (Schiff's bases) (**VIIIi–xii**)
- Table 23.** Physical and spectral data for *Trans-N*-[4-(substitutedphenyl)-2-oxo-3-substituted-azetidin-1-yl]-arylamides (**VIIIi–xvi**)
- Table 24.** Biological data (change in lipid profile of test animals effected) of *Trans-N*-[4-(substitutedphenyl)-2-oxo-3-substitutedazetidin-1-yl]arylamides (**VIIIi–xvi**)
- Table 25.** Comparison of the distances of the centroids of backbones of ligands **Xa**, **Xb**, **Xc** and ezetimibe from the amino acid residues of the active site
- Table 26.** Summary of results obtained by docking ezetimibe & structures **Xa–c** with NPC1L1 protein
- Table 27.** Target compounds - planned for synthesis
- Table 28.** Target compounds synthesized (**Xi–viii**)
- Table 29.** Physical and spectral data for 2-(substitutedbenzylidene)-1-phenylhydrazines (Schiff's bases) (**IXi–iv**)
- Table 30.** Physical and spectral data for *Trans*-3-substituted-4-aryl-1-phenylamino-azetidin-2-ones (**Xi–viii**)
- Table 31.** Biological data profile (change in lipid profile of test animals effected) of *Trans*-3-substituted-4-aryl-1-phenylamino-azetidin-2-ones (**Xi–viii**)
- Table 32.** Some important ligands of PPARs
- Table 33.** Data for the docking interactions of LM-1554, LM-1576 and native ligand at the active site of NPC1L1 target
- Table 34.** Data for the docking interactions of LM-1554, LM-1576 and native ligand at the active site of ACL target
- Table 35.** Data for the docking interactions of LM-1554, LM-1576 and native ligand at the active site of CRP target
- Table 36.** Data for the docking interactions of LM-1554, LM-1576 and native ligand at the active site of LDM target
- Table 37.** Data for the docking interactions of LM-1554, LM-1576 and native ligand at the active site of SqS target
- Table 38.** Data for the docking interactions of LM-1554, LM-1576 and native ligand at the active site of FXR target
- Table 39.** Physical and spectral data of 4-chloro-2-(chloromethyl)-5-(4-chlorophenyl)thieno[2,3-*d*]pyrimidine (LM-1576)

## List of Tables

---

- Table 40.** Preventive study (change in lipid profile of test animals effected) data for LM-1576, LM-1554 and ezetimibe
- Table 41.** Precision and accuracy for the determination of LM-1576 in rabbit serum by HPLC method
- Table 42.** Stability of LM-1576 in rabbit serum different conditions determined by HPLC method (n = 3)
- Table 43.** The pharmacokinetic parameters of LM-1576 in rabbit serum following an oral administration of 100 mg/kg LM-1576