The contents of the experimental part of this thesis, submitted for the degree of Doctor of Philosophy (Science) of the University of Calcutta, have been divided into the following five parts:

- **Part I**: Syntheses of amides, amines and amino esters containing undec-10-enyl moiety.
- **Part II**: Syntheses of 1-undec-10-enylaminoundec-10-ene hydrochloride.
- **Part III**: Syntheses of thioearbamides and thionocarbamates.
- **Part IV**: Syntheses of 1-undec-10-enyl-1,2,3,4,4a,9b-hexahydro-2-alkyl-5H-indeno[1,2-c]pyridazines.
- **Part V**: Syntheses of substituted quinolines.

In part I of this thesis, syntheses of various amides, amines and amino esters of undec-10-enoic acid have been described. Only one compound showed appreciable antifungal activity in vitro.

High in vitro antifungal activity of 1-indanylmaminoundec-10-ene hydrochloride, prompted us for further modification of its structure. None of the variations showed appreciable activity to warrant further investigation.

In part III of this thesis simple thioearbamides and thionocarbamates were screened but none of them proved promising for further work in this line.

In part IV of this thesis indenopyridazine derivatives of undec-10-enoic acid have been described. Unfortunately they showed poor activity.

In part V of this thesis additional chelation facilities were introduced in 8-quinolinols but that did not improve antifungal activity.