The idea about the present work was derived from an investigation carried out earlier in this department. Since then attempts were directed toward the present study on cerebral and pituitary lipids in atherosclerotic brains of rats with reference to their normal lipid status.

Initial attempts for inducing atherosclerosis in rats fed in lipid-rich diet were made simply by ablating thyroid either by surgical removal or by radioiodine administration. These, however, later proved to be expensive since mortality was high in spite of attempts to make good the deficiencies created by thyroid ablation, in the diet. Subsequently, a modified Hartroft diet was used with success.

Much pains had to be taken in standardizing the chemical methods used for estimating brain lipids and their various fractions, and also for their chromatographic separation and histochemical localisation. Originally, autoradiography as a method to study the brain lipids at the tissue and cellular level was envisaged. But such
Attempts had to be abandoned later due to the non-availability of stripping films in this country during that time. Every attempt has been made to document the thesis work with printed illustrations whenever possible. Coloured illustrations of histochemical studies had to be avoided as much as possible as they were found to be very expensive. Lastly, it should be mentioned that every care has been taken to limit the presentation without losing the relevant details so as not to make the thesis work unnecessarily lengthy.