The eye lens plays an indispensable role in the visual process, by focusing light on the retina. In the normal crystalline lens, the cellular architecture is very regular and its transparency is believed to be the result of a spatial order of lens proteins. Any change in the vital process of the lens, brings a disturbance in its transparency, which in turn leads to the opacification of the lens, resulting in blindness.

Cataract is one of the main cause of blindness and constitutes the main surgical work load in ophthalmic services throughout the world, especially in India. The magnitude of the economic as well as, other losses associated with this disease, has become very high now a days. Thus, it would be desirable to develop in order to prevent or retard the onset of the disease. To attain the research goal “Cure or Prevention of Cataract” a basic knowledge in the structural and biochemical changes occurring during the development of cataract is essential.

A lot of studies have been done on the human normal as well as cataractous human lenses. Many factors such as nutritional, physiological, chemical and physical have been implicated in the development of cataract. Most of these speculations need further research in details, because the research goal, “cure or prevention” as it seems today, is still a far cry today. Since it is difficult to carry out extensive studies on human lenses, one has to concentrate on experimental animals.
The subjects thus envisaged, the work embodied in this thesis has been undertaken to study more extensively the structure and various biochemical changes taking place in the human lens. It has also been designed to enlighten the morphological, structural as well as biochemical changes in the lens during the initiation and maturation of cataract.

This thesis consists of five chapters, chapter 1 gives a general introduction and literature review. Chapter 2 deals with various materials and methods used in the investigation. Chapter 3 presents the result obtained followed by chapter 4 in which the data and various observations are discussed and chapter 5 gives a summary, conclusion and future line of action followed by bibliography in chronological order. The present piece of work extensively correlates the various biochemical changes occurring in normal as well as cataractous lens.