Scope of the Present Investigation
In India, with change in life expectancy and life styles, the incidence of hyperlipidemia and hypercholesterolemia has increased steadily. Diet, directly or indirectly, plays an important role in the development of hyperlipidemia. Hyperlipidemia has been related to a high incidence of cardiovascular diseases. Observations on the relationship between high fat diet and atherosclerosis evoke further interest leading to various studies.

Today, hyperlipidemia-induced atherosclerosis is an important health problem. The rising standards of living with an ever increasing problem of hyperlipidemia have been a great stimulus for the discovery of new hypolipidemic agents. Though many hypolipidemic drugs, such as statins, bile acid sequestrants and drugs that lower the plasma lipoprotein concentrations, are extensively used in hypercholesterolemia, they cause undesirable side effects to the system. Clofibrate is one such hypocholesterolemic drug which causes liver damage on long term administration. Though clofibrate has been in vogue, for over 30 years, humans treated with clofibrate suffer mortality and morbidity, not due to coronary heart disease, but due to liver damage and other diseases. Hence, the research interest was directed towards administration of a therapeutic herbal drug which is hepatoprotective in nature in addition to its hypocholesterolemic action. The therapeutic conditions demand that medicinal properties obtained from plant sources should possess good hypolipidemic properties. A perusal of literature shows that only a few herbs have so far been screened for their antihypercholesterolemic effect. Virtually, very little scientific work has been done on the claims enshrined in the traditional literature.
*Eclipta alba* is a powerful antioxidant and a free radical scavenger and itself a hepatoprotective drug. It also exhibits immunoactive property and is used in the treatment of various ailments such as gastrointestinal disorders and liver disorders. Hence, an attempt was made to study the hypolipidemic potential of *Eclipta alba* in all its aspects against experimentally induced hypercholesterolemia in rats.

Stress was laid on histological study on different tissues such as heart, liver and aorta and electrocardiographic study to establish the effectiveness of *Eclipta alba* against hypercholesterolemia as well as the non-toxic nature of the drug and execute hematological and biochemical studies.

Studies have been conducted on the lipid profile and pathophysiological enzyme pattern of blood and tissues to have a better understanding on the therapeutic efficacy of *Eclipta alba*.

Hyperlipidemia is associated with the production of free radicals and accumulation of fats which necessitated the study of lipid and lipoprotein profile, levels of lipid peroxides and the status of both non-enzymic and enzymic antioxidants. Clofibrate, a standard hypolipidemic agent, was used as a positive control in the present study to compare the hypolipidemic potency of *Eclipta alba*.

The objective of the study was to reveal the non-toxic nature and the hypolipidemic effect of *Eclipta alba* against experimentally induced hypercholesterolemia in rats. It is hoped that the data presented in this study
will further stimulate investigations on the therapeutic efficacy of *Eclipta alba* as a hypolipidemic agent and the findings will help to improve the health care of the subjects.