Cardiovascular diseases — diseases of the heart and blood vessels are the leading cause of death in affluent countries. They afflict more than 28 million people and are responsible for about 1 million deaths per year in the United States alone. This means that half of the all deaths in this country can be attributed to cardiovascular diseases.

Although such statistical records are not available for Indian population yet the National Committee on Science and Technology (Govt. of India) in its 1974-79 draft plan has indicated that coronary vascular diseases are likely to assume importance in future in India where rapid industrialisation and urbanisation is bringing a change in the life style. There is, therefore, a strong case to develop programmes for prevention of disease and thereby reducing the death rate. During the past several years increasing evidence has accumulated to support the concept that coronary heart disease (CHD) is in some way related to high concentration of cholesterol and triglyceride in blood. A large number of hypolipidemic compounds have been found but they are not of routine clinical use because of their harmful side effects. Therefore, it is quite justifiable to search for an ideal hypolipidemic agent.
having none or minimum side effects. People consuming a
staple diet made up of bengal gram showed a relatively low
incidence of CHD. This legume serves as chief source of
protein in India. In extensive studies on rats, rabbits and
human volunteers, Mathur and his associates have established
the benefecial effects of bengal gram in preventing
atherosclerosis (Krishna Murty, 1974). A number of biologi­
cally active flavonoids and glucosidal components have been
isolated from bengal gram. Two isoflavones, Biochanin A and
Formononetin known to have estrogenic property isolated from
germinated bengal gram possess hypolipidemic activity in rats
(Siddiqui and Siddiqi, 1976). They are synthesized de novo
during germination. Some workers did not use germinated legume,
therefore, they failed to observe the benefecial effect of
bengal gram (Mitya Nand and Kapoor, 1973). Considering the
hypolipidemic activity of whole bengal gram and its fractions,
the present work was directed to isolate various fractions of
bengal gram. Using male albino rats as experimental animals,
the hypolipidemic activity of various fractions of bengal gram
vis., total lipids, fatty acids, unsaponifiable portion,
globulin, prolamine, glutelin, insoluble carbohydrates, hot
water extractable portion and soluble complex polysaccharide
have been evaluated under varying dietary stresses e.g. choles­
terolemic diet, fat-rich cholesterol diet, atherogenic diet,
Triton WR-1339, alcohol, fructose in drinking water and vitamin D2 and cholesterol in olive oil. The effective therapeutic dose of various fractions of bengal gram which has a hypolipidemic property in rats is 50 mg/kg. A preliminary characterisation of active fractions of bengal gram has revealed that the legume has a large variety of hypolipidemic compounds other than Biochanin A and formononetin, previously reported from this laboratory.