



INSTITUTE COLLOQUIUM

INDIAN INSTITUTE OF SCIENCE
BANGALORE

PROF. UDAY MAITRA
Department of Organic Chemistry

will deliver a lecture

on

Playing Games with Bile Acids!

on Thursday, the 14th March 2002
at 4.00 PM in the Faculty Hall.

THE DIRECTOR
will preside.

All are cordially invited.

Coffee/Tea: 5.00 PM
Reception Hall

Prof. S S Krishnamurthy
Convener

ABSTRACT

Bile acids are naturally occurring degradation products of cholesterol which are present in the bile, in the form of taurine and glycine conjugates. They perform a number of important biological functions such as prevention of cholesterol gallstone formation and emulsification of fats for subsequent digestion.

During the past decade, new molecular and supramolecular chemistry of bile acid *analogs* have been developed in the speaker's group. These include the use of bile acid derivatives as chiral templates and chiral auxiliaries, as molecular tweezers, and as organo- and hydrogelators. Some of the gels made from modified bile acids have interesting properties which can possibly be utilized to design novel materials. Many of these bile acid analogs also have the potential to act as bile acid antagonists in natural systems. The work done in the speaker's group during the past decade, along with future plans, will be highlighted in this lecture.