Objectives of the present work

- To evaluate the anti-cancer activity of the crude extracts of *Glycosmis pentaphylla* (Retz.) DC in various cancer cell lines (MCF-7, MDA-MB-231, HeLa, HCT-116) and normal cell lines (Vero and V-79).
- To fractionate the active extracts and screen the fractions for anti-cancer activity in a panel of cancer cells (MCF-7, MDA-MB-231, HCT-116, SHSY-5Y) and normal cells (MCF-10A and Vero).
- To characterize the chemical constituents in the active fractions and standardize them.
- To evaluate the possible mechanism of activity of the active fractions using MCF-7 and MDA-MB-231 breast cancer cells.
- To evaluate the fractions for the possible anti-tumor effect in DMBA-induced mammary tumor model in rats.
- To evaluate the *in vivo* anti-cancer efficacy of the fractions in Ehrlich ascites carcinoma model in mice.