OBJECTIVE OF STUDY
The present therapy i.e., Highly Active Antiretroviral Therapy aims at reducing the viral load and thereby bringing CD4 counts to normal level. The present HAART therapy comprises of drugs that are either Nucleoside/nucleotide reverse transcriptase inhibitors or Non-nucleoside reverse transcriptase inhibitor or protease inhibitors. Despite its success, HAART suffers from the emergence of multi-drug-resistant virus strains, toxicity, difficult treatment regimens, and inadequate pharmacology, bioavailability and tissue distribution. In the developing world, many of these therapeutic strategies are unavailable due to the prohibitively high cost of the drugs. In these areas, the absence of an effective vaccine and the lack of effective therapy, means that sub-Saharan Africa and Southeast Asia remain epicenters for the spread of HIV, especially among heterosexual women.
In these areas of extremely high HIV transmission rates, the opportunities to derail the AIDS pandemic rests on the processes of education and behavioral prevention and the development of effective prophylaxis, including specific HIV prevention strategies employing chemical agents to prevent the sexual transmission of HIV.
Till date there is no cure for AIDS. Hence efforts should be made to find out novel anti-HIV agents with better activity than the existing drugs so as to eradicate the virus. We intend to assess anti-HIV-1 activity of some bioactive compounds in various cell lines against HIV-1 isolate. Most potent compounds will be further evaluated for efficacy to be used as HIV-1 microbicides.