

IIIM-019:

It is a new lead molecule based on bicyclic nitroimidazole namely dihydronitroimidazooxazole with potent anti-TB activity. IIIM-019 is active against resistant, replicating as well as non-replicating M. tb. It has very good metabolic stability in RLM (90% remaining after 30 minute) and also possess excellent pharmacokinetic profile with oral bioavailability of 59%. It has shown good *in vivo* efficacy in intranasal and aerosol infection model of mice. It didn't show liability towards Cyp enzymes at concentration up to 100 μ M. It also showed synergistic and additive effect with first line anti-TB agents. It is quite safe in Ames test and *in vitro* chromosomal aberration study. In acute toxicity study, using both female Wister rat and Swiss mice model, it didn't show any adverse effects at a dose of 2000 mg/kg p.o. by. This lead is presently under IND-enabling studies.