

IIT Roorkee scientists identify drug for Chikungunya

Scientists at IIT-Roorkee have found that a commonly used de-worming drug has anti-viral properties and could lead to new therapies against Chikungunya — a deadly, mosquito-borne disease.

Currently, there are no vaccines or antiviral drugs available to cure Chikungunya, and the treatment is focussed on relieving the symptoms associated with

the infection.

“Our research has shown that piperazine, a drug existing in the market, is successful in curbing the spread and replication of the Chikungunya virus in a lab setting,” said Shailly Tomar, a professor at Indian Institute of Technology (IIT) Roorkee in Uttarakhand.

“We are currently testing the molecule on animals and hope to take this to clinical



trials soon,” said Tomar, who headed the research project.

Piperazine is a drug com-

monly used in deworming treatments against roundworm and pinworm.

Scientists, using their expertise in virology and structure biology, discovered antiviral potential of piperazine and determined the mechanism of inhibition of Chikungunya virus.

The molecular details revealed in the study can be further utilised to design piperazine derivative drugs

that are more potent and aggressive to fight Chikungunya virus, Tomar said.

The study, published in the journal Antiviral Research, describes the potential of piperazine as a pharmacotherapeutic agent, and how binding these molecules to the hydrophobic (water-hating) pocket of capsid protein present in the Chikungunya virus can inhibit the spread of the virus. —PTI