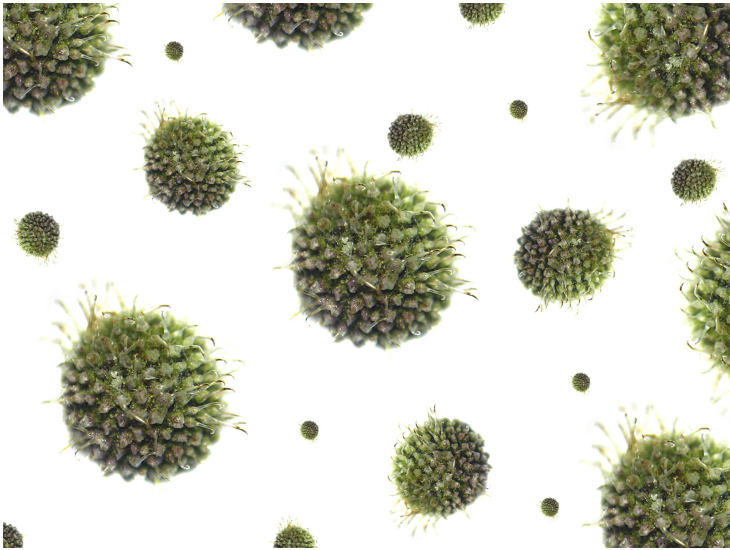


IIT researchers re-define a drug for chikungunya

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The trials on animals and humans will be more to understand the efficacy of the drug in treating chikungunya infection.



A drug to treat chikungunya virus infection is in the offing, and in vitro studies carried out by a team of researchers from the Indian Institute of Technology (IIT) Roorkee show promise. Currently, there is no cure for the disease and treatment is focused more on relieving the symptoms.

Since the team used an existing drug piperazine, safety of the drug is already known and hence the trials on animals and humans will be more to understand the efficacy of the drug in treating chikungunya infection.

Piperazine is used for the treatment of worm infections. The antiviral drug indinavir used for treating HIV positive people is a piperazine-based molecule. The derivatives of piperazine are used as anti-histamines and anti-depressants drugs too.

Drug binding studies were carried out using chikungunya virus and it was found that the binding of the drug at the capsid protein was better in the case of chikungunya virus. The function of capsid protein is essential for the virus budding and replication of virus. On studying the antiviral activity of piperazine molecule against chikungunya, it was found that the molecule inhibits virus replication.