

## RNAi agent for inhibition of Chikungunya virus

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**About the Technology:** This invention relates to novel RNAi agents and compositions comprising them that silences two essential Chikungunya genes—E2 and nsP1, delivering complete viral suppression in vivo with a single dose.

**Technology ID:** PM-TT-IM-2025-Jul-11

**Lead Inventor:** Dr. Deepti Parashar

**Institute:** ICMR – National Institute of Virology, Pune

**Technology Domain:** Therapeutics

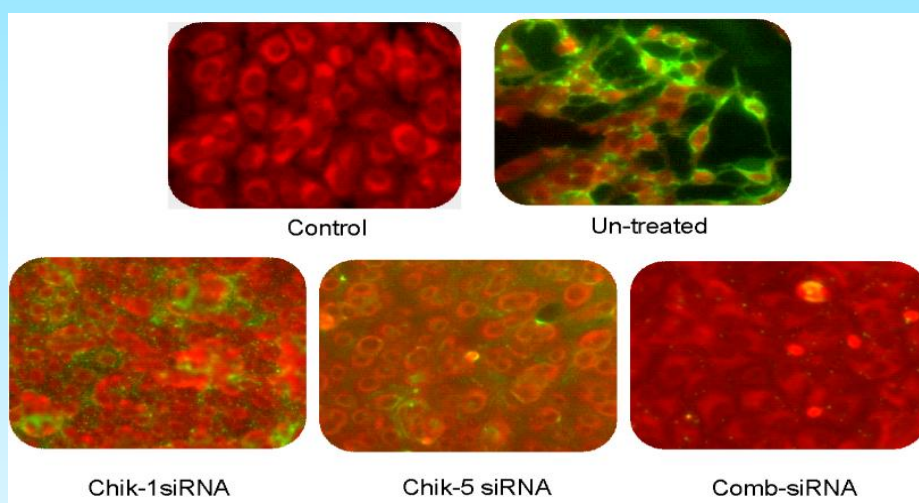
**Disease Area (Broad):** Communicable Diseases (bacterial, viral, fungal, parasitic) – Chikungunya.

### Need and utility of the Technology from Public health perspective:

This technology addresses a major public health need by reducing disease burden and complications, offering a safe, scalable antiviral solution, and minimizing healthcare costs and economic loss.

### Technology Readiness level (TRL):

The technology has demonstrated experimental proof of concept and demonstrated efficacy on VERO cell lines and C57BL/6 mice.



### Validation Status and Study Outcome:

- Inhouse Validation –Complete
- Efficacy Outcome: siRNAs targeting E2 (Chik-1) and nsP1 (Chik-5) genes achieved up to 7 log<sub>10</sub> reduction in viral load.

### Market Potential:

**Annual CHIKV infections:** Estimated at ~35 million cases globally and is expected to increase to ~40 million by 2030

**Unmet need:** No specific anti-viral therapy is currently available for Chikungunya.

**Publication:** NA

**IP Filing:** Patent Granted in the US, EP, CN, Australia and India (Indian Patent: 371495)