

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

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Technology Domain: Therapeutics

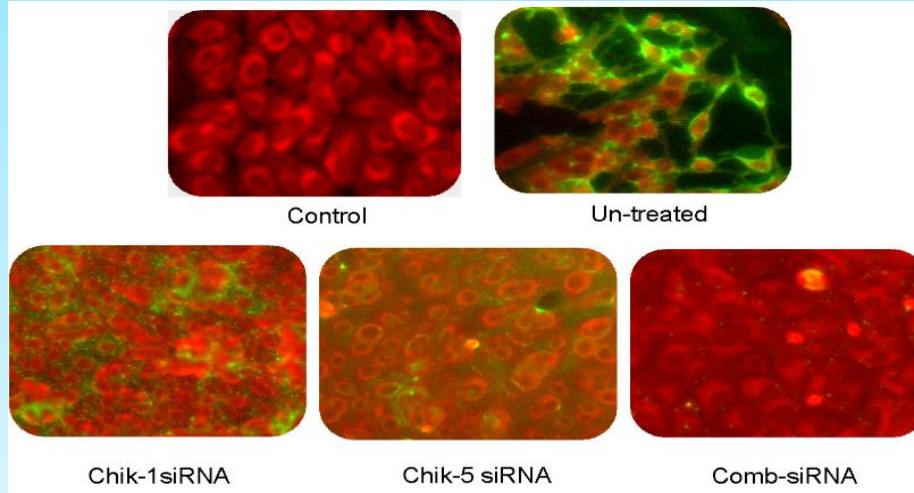
Disease Area (Broad): Communicable Diseases (bacterial, viral, fungal, parasitic) – Chikungunya.

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 $7 \log_{10}$ 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)