CRISPR vs mRNA: Excision and Moderna battle for genetic therapy for HIV

Moderna and Excision BioTherapeutics are stepping into a battle with HIV, a 41-year epidemic that has confuddled drug developers and vaccine makers the world over.

The COVID-19 vaccine maker has started applying its mRNA technology to deliver a jab for HIV on the same day Excision says it's begun investigating a CRISPR-based therapy for the immune-system attacking virus.

The companies are attempting to upend the landscape for fighting HIV, as currently approved treatments, known as antiretroviral therapies, reduce the viral load to levels that can't spread to others, but the meds must be taken daily for life and the virus lives on hidden in the genome of T cells.

Moderna and Excision are launching into a drug development landscape that has tripped up major pharmaceutical companies. Last month, Merck was hit with 13 clinical holds for a slate of trials for an HIV therapy. The six full holds and seven partial ones cover the entire clinical development program for Merck's islatravir, which is being tested as a pre-exposure prophylaxis, an HIV-1 treatment and for other preventative measures.

Moderna and Excision's announcements come a day after researchers said Merck's blockbuster cancer med Keytruda helped bring dormant HIV out of hiding in patients living with both the virus and cancer who are on antiretroviral therapy, potentially changing the need for a daily pill regimen.

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