HIV Uses ‘Invisibility Cloak’ to Evade Immune System

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Researchers have discovered that HIV uses a kind of “invisibility cloak” to hide in cells without alerting the body’s immune response—a finding that may lead to new treatments, The Conversation reports. Publishing their findings in the journal Nature, researchers studied HIV-infected cells in a laboratory setting and discovered two molecules within human cells that HIV uses after infection to avoid alerting the immune system to its presence.

Using a version of the anti-rejection transplant drug Cyclosporine modified to prevent its immune-suppression capacity, the investigators targeted those two molecules and in essence removed the invisibility cloak, thus triggering the natural immune response.

A potential new therapy using this technique could prove less susceptible to treatment failure because it would not target the virus itself.

“There’s a great deal more research needed but the potential for this approach is huge, as a possible treatment in itself but also as a complement to existing therapies,” Greg Towers, PhD, a Wellcome Trust Senior Research Fellow at UCL and lead author of the study, said in a release. “We’re also interested to see whether blocking these cloaking molecules can help to boost immune responses to experimental vaccines against HIV or be used to protect against HIV transmission.”

To read the Conversation report, click here.

To read the release on the study, click here.

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http://beta.docker.poz.com/article/invisibility-cloak-24733-2549