

A Twist in the Genome Thwarts Hepatitis C

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Credit: Thomas Hermann

(PhysOrg.com) -- Viruses like Hepatitis C proliferate by tricking cellular machinery into manufacturing the parts for duplicate viral particles.

Although thwarting that process might effectively treat viral infections, the few inhibiting compounds that have been identified so far aren't good candidates for drugs. And biochemists weren't exactly sure how they were working.

Now Thomas Hermann, assistant professor of chemistry and biochemistry, and colleagues at UC San Diego have shown that this bent loop on the viral genome changes its shape in response to the inhibitors,

preventing the [host cell](#) from reading the codes for viral proteins.

Their discovery, published online this week in *Nature Chemical Biology*, will guide the search for better candidates to quell the virus, which the World Health Organization estimates infects about 170 million people worldwide and causes chronic liver disease and liver cancer.

Hermann's group is now looking for new, more easily synthesized [drug candidates](#), that might stop viral replication in a similar way.

Provided by University of California - San Diego ([news](#) : [web](#))

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