Cure: Mouse Study

The researchers studied a new compound that blocked a key viral protein that prompts infected cells to produce more virus.

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Scientists have developed a new means of preventing cells latently infected with HIV (meaning they are not replicating) from producing new virus, which with further research may eventually contribute to a functional cure. The researchers studied mice engineered to provide a model in which to study latently infected cells. The animals received a month of therapy with standard antiretroviral (ARV) treatment plus a compound that blocks a key viral protein. Known as Tat, the protein is a kind of on-off switch for infected cells; when triggered, Tat spurs an infected cell into virus-producing replication. If Tat were blocked indefinitely, latent HIV might remain dormant, even without ARVs. After the mice's treatment was interrupted, those treated with just ARVs experienced viral rebound after an average of seven days, compared with 16 days among the mice that also received the compound.
