



High Definitions

You walk the walk; now talk the talk with this vital med lingo

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Watch your language: Two trailblazing drugs will expand your treatment choices—and your vocabulary. FDA approval could be around the corner for two new entry inhibitor (EI) meds: maraviroc and vicriviroc. What's an EI, you ask? While nukes, non-nukes and protease inhibitors mess with HIV after it invades your CD4 immune cells, EIs stop the virus from entering at all. The new pills will latch onto receptors on the surface of CD4 cells, blocking HIV. But the virus can attach to two different CD4 receptors; which one it chooses can affect how an EI works for you. The following terms will soon be as familiar as “CD4 cells” and “viral load.” Study up, and they—and your doctor—will start making sense.

CCR5 and CXCR4; “R5” and “X4” for short: the receptors on CD4 cells.

Tropism (or tropic): HIV's tendency to use one or the other receptor to enter CD4s.

R5-tropic; X4-tropic: HIV that uses CCR5 or CXCR4. Virus in people with advanced AIDS (and maybe earlier) may switch from the R5 receptor to the X4. Whether this is a cause or an effect of disease progression is unknown.

Mixed-tropic: pool of HIV that includes R5- and X4-tropic viruses.

Dual-tropic: HIV that can use R5 or X4. Maraviroc and vicriviroc target only R5-tropic HIV, but data suggest that they could benefit people with mixed-tropic virus. And while some studies show that HIV can switch from R5 to X4 with these drugs, disease progression hasn't accelerated. Meanwhile, researchers are working toward EIs that target X4-tropic virus. Word.