# BMS Maturation Inhibitor Is Potent Against HIV in Early Trial

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Bristol-Myers Squibb's investigatory maturation inhibitor BMS-955176 showed promise in an early trial examining its potency against HIV. Researchers presented findings from the Phase IIa, randomized trial of the drug at the 2015 Conference on Retroviruses and Opportunistic Infections (CROI) in Seattle.

A maturation inhibitor is a new class of antiretroviral that attacks HIV at one of the final points in its lifecycle, causing the HIV-infected immune cell to release immature, non-infectious copies of the virus.

The study participants were all infected with subtype B of HIV-1 and had a viral load of at least 5,000 and a CD4 count of 200 or more. Forty-eight participants were divided into four groups of 12 people, who received 5, 10, 20 or 40 milligrams of BMS-955176. Another 12 received a placebo. All of them were treated for 10 days. Later, an additional 20 participants fitting the same criteria were randomized to receive either 80 or 120 mg of the drug for the same period.

The primary goal of the study was to see if any of the doses of the drug could reduce viral load by 10-fold, meaning by 90 percent, from the beginning of the study to day 11—for example, from 5,000 to 500. The study succeeded: Those taking the 40, 80 or 120 mg doses saw their viral loads drop and then plateau in a close to 100-fold reduction. (Specifically -1.64 log10, or a 97.7 percent reduction.)

"Targeting HIV-1 later in its viral lifecycle is an important progression for antiviral therapy," said Dirk Schürmann, MD, of Charité Research Organisation GmbH in Berlin, Germany. "The need for new drug classes is growing, as patients start treatment earlier, stay on treatment longer, develop viruses that are cross-resistant to multiple classes, and face long-term safety and tolerability associated with some of the current HIV therapies. Early data on BMS-955176 illustrates that it is a viable maturation inhibitor candidate for further study."

To read the conference abstract, click here.