

# Fantastic four: science and advocacy take HIV steps ahead on testing, prevention, treatment, and undetectability goals

Newsfeed been getting you down? We hear you. Coverage for treatment and funding for HIV research all over the world have been undermined by harrowing recent decisions coming out of the USA. But despite this, we caught four instances of new hope in HIV advocacy and scientific research that have lightened our mood, for you to file under H, for “hope”.

## 1) We love a loud callout: *Where are the HIV self-testing kits?*

We would like to congratulate our partners in the campaign "HIV testing? For spring? Groundbreaking..." for all the media coverage they received in July about the urgent need for access to self-testing kits. By calling out governments high and low for being lazy, useless, and cheap, COCQ-sida and REZO reminded us all of the need to fund and widely distribute HIV self-tests. One of four pillars in ending the HIV pandemic, testing is fundamental!

## 2) We've got that new Apretude... covered

Long-acting injectable PrEP (pre-exposure prophylaxis) has been a major trend in HIV prevention since the WHO<sup>1</sup> approved injectable cabotegravir in 2022. Under the brand name Apretude, it is covered for holders of Québec's RAMQ as of spring 2025. This expansion of provincial pharma plan coverage is a first in Canada, hopefully a good sign for things to come. Public investment based on accessible, obvious information (this type of PrEP is known for having relatively few serious side effects<sup>2</sup>) never goes out of style.

## 3) Comeback girl: Lenacapavir

A vintage '90s *supermolecule* has proven highly effective, even for PLWHAs who have not had success with other go-to ARV treatments. In a pharma class of her own, lenacapavir is back on the highly effective treatment study runway.

*Who is she?* - Lenacapavir belongs to a medication type called “capsid inhibitors”, a class of pharmaceuticals that unzips HIV genetic info (RNA) when the virus tries to reproduce inside CD4 immune cells. Originally intended as an

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<sup>1</sup> “[WHO recommends long-acting cabotegravir for HIV prevention](#)” World Health Organization, 2022

<sup>2</sup> Side effects are usually minor, like those of its main common ingredient in the treatment of HIV infection, cabotegravir. But minor prevalence does *not* mean minor inconvenience: some people may experience irritation and a wide variety of side effects when starting of treatment, like nausea, digestive or sleep disorders, in the initial phase of adaptation after first injection; watch out for weirder side effects for cabotegravir like anxiety or nightmares! [CATIE. 2022](#)

oral pill, lenacapavir may soon jump on the long-acting injectables bandwagon and only need to be administered every six months.

*What's new, why now?* - Lenacapavir is inexpensive to produce and highly rated because it could easily be added to a variety of common treatment regimens, a potential new line of defence that rarely clashes with other meds.

According to our colleagues at CATIE, “Léna” is currently undergoing clinical trials in 229 people living with HIV in Canada, the last step before being made available more widely (most likely, in clinical settings with adjacent pharmacies). She’s on trend: lenacapavir may soon also be used as PrEP, too. Speaking of injectables...

#### 4) International stars of the lab, still far from perfect: bNAbs (Broadly neutralizing antibodies)

Broadly Neutralizing Antibodies (bNAbs) have been the stars of international research since promising studies involving American and South African participants were announced this spring.

*What makes bNAbs special?* - Putting our knowledge of RNA genetics to the test, this bicontinental study sought to mimic the immune system of non-progressors, people with a rare natural superpower to produce antibodies that fight viral infection without needing medication for many years.<sup>3</sup> The technical advance of bNAbs is in replicating antibodies that non-progressors make naturally, and (the wow factor), transferring those protein-makers to stimulate antibody production in people living with HIV whose immune system does not make them naturally.

In recent studies, bNAbs have proven to reduce HIV viral load to undetectable levels, with a simple injection of this solution every 6 months (eventually, perhaps just once a year!) in just over half of the initial cohort of healthy men living with HIV. The technique is stunning, but **rather unsuccessful in the other half of the cohort.**

**Now, a warning:** We have to point out that despite receiving regular checkups, **5% of participants developed symptoms and prodromes of AIDS within a year.** These participants were **withdrawn from the study and rapidly put back on ARV treatment.**

It is possible that these bright new shiny bNAbs (the Pasteur Institute calls them “les stars”) become a widely used tool in the HIV treatment toolbox some day, perhaps in combo with long-acting injectable ARVs. So versatile! (*The Lancet* be like “why not try them with lenacapavir?”<sup>4</sup>). **BNABs are very far from being ready for roll-out, but that will not stop us from hoping.**

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<sup>3</sup> Parveen Kumar, “[Long term non-progressor \(LTNP\) HIV infection](#)” - [PMC](#) *Indian Journal of Medical Research*. September 2013.

Grabar, Sophiea et al. “[Prevalence and comparative characteristics of long-term nonprogressors and HIV controller patients in the French Hospital Database on HIV](#)”. *AIDS* 23(9):p 1163-1169, June 1, 2009

<sup>4</sup> Martinez, Esteban. [Lenacapavir plus two bNAbs: feasible, with some caveats](#) - [The Lancet HIV](#). *The Lancet HIV*. Volume 11, Issue 3, e132 - e133