



# SUPPORTING SCALE UP ACCESS TO VIRAL LOAD TESTING TO IMPROVE THE MONITORING OF PEOPLE LIVING WITH HIV

OPEN POLYVALENT PLATFORMS (OPPs),  
AN INNOVATIVE TECHNOLOGY ADAPTED  
TO RESOURCE-LIMITED COUNTRIES

A PROJECT FUNDED AND SUPPORTED BY



# THE OPP-ERA PROJECT

## CONTRIBUTING TO THE 3rd OBJECTIVE OF THE THREE UNAIDS "90" TARGETS

Viral load is the key indicator of the antiretroviral treatment (ART) effectiveness.

When it is undetectable, it is a marker of treatment success, whilst otherwise, it makes it possible to identify cases of treatment failures and thus shows the necessity to strengthen observance.

Increased access to viral load testing is one of the conditions needed to reach the 3rd "90" of this global target set by UNAIDS by 2020, which means 90% of patients receiving antiretroviral therapy are virally suppressed.

However, access to viral load testing remains very limited in sub-Saharan African countries, whereas it is recommended for all HIV patients on ART.

## FILLING IN THE GAP IN VIRAL LOAD TESTING ACCESS IN WESTERN AND CENTRAL AFRICA

17% of the HIV-positive population worldwide live in Western and Central Africa.

BUT 25% of deaths among adults and 40% among children occur in this region, with a low viral load testing coverage of 10% on average.

The OPP-ERA project is being implemented in **Burundi, Cameroon, Côte d'Ivoire** and **Guinea** since March 2013. It aims to improve the monitoring of people living with HIV/AIDS through an increased access to viral load testing, with the implementation of open polyvalent platforms (OPPs), an innovative system of molecular biology techniques for laboratories.



# SUCCESSES ACHIEVED SINCE 2013

- 7 functional laboratories to conduct routine viral load tests.
- More than 220 laboratory clinicians and technicians trained.
- 103,000 viral load tests conducted between August 2014 and May 2017 in the 4 countries.
- Internal technical support on a regular basis and periodic quality evaluation through both internal and external quality assessments (CDC, QCMD) for the 7 laboratories.

## SECOND PHASE OF THE PROJECT FROM 2016 TO 2019

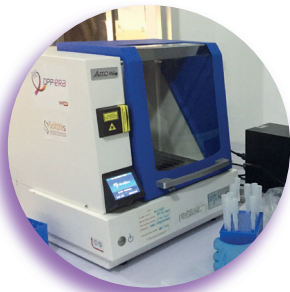
Launched officially in August 2016, it aims to:

- Speed up access to effective viral load testing on a larger scale and at a more affordable cost in those four countries.
- Equip 7 additional laboratories with an OPP.
- Guarantee the training of human resources involved in the project.
- Demonstrate the polyvalence of OPP for HIV Early Infant Diagnosis (EID) and the diagnosis of other infectious diseases such as Tuberculosis and Viral Hepatitis.
- Promote competition among providers of component parts of the OPPs.
- Strengthen the promotion of the OPP model to facilitate its adoption by other countries.
- Ensure the transition to Governments by the end of the project.



# OPEN POLYVALENT PLATFORMS

A SOLUTION ADAPTED TO RESOURCE-LIMITED COUNTRIES



EXTRACTION



AMPLIFICATION



ANALYSIS

## THE 9 KEY ARGUMENTS OF OPPs



**PROVIDERS' MARKET OPENNESS AND STIMULATION**

1

Each component part of an OPP can be procured from different providers, thus promoting competition among them and keeping the market dynamic.



**MODULARITY**

3

The OPPs are composed of only 2 devices, namely extractor and thermocycler: they require little space and thus fit all laboratories, especially those of little and medium size, in the capital or in regions.



**POLYVALENCE**

2

This innovative molecular biology system allows an optimized usage of the same equipment for monitoring HIV-1 and HIV-2, HIV Early Infant Diagnosis, Tuberculosis as well as of other infectious diseases such as Hepatitis B and C.



**COMPLEMENTARITY TO EXISTING TECHNIQUES**

4

The OPPs contribute to national strategies of the Ministries of Health to scale up access to viral load testing, complementing other diagnostic techniques. The OPPs are therefore totally adapted to national and WHO recommendations.

« The Open Polyvalent Platforms provide an innovative response that is complementary to other molecular biology diagnostic technologies. They are adapted to the needs of resource-limited countries, to perform routine Viral Load Testing. »



**Pr Christine Rouzioux**

Virology Laboratory at Necker hospital and Paris-Descartes University  
Scientific Director for the OPP-ERA project



## TIMELY RESULTS

5

Owing to short durations in performing the tests, diagnosis is available within a short time frame, thus improving patient care.



## LIMITED ENVIRONMENTAL IMPACT

8

Disposable plastic waste of small volume and easy to get rid of: environmental impact resulting from the viral load testing is reduced.



## ADAPTABILITY TO COUNTRIES WITH LOW AND MEDIUM PREVALENCE

6

A flexible solution which ensures constant availability of viral load testing even in the contexts of low and medium volumes of tests requests.



## HIGH REACTIVITY TO CONSTANT INNOVATIONS FOR MOLECULAR DIAGNOSIS OF NEW EMERGING DISEASES

9

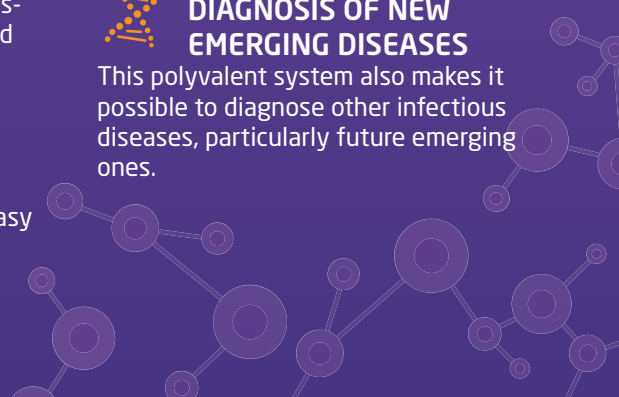
This polyvalent system also makes it possible to diagnose other infectious diseases, particularly future emerging ones.




## SIMPLICITY

7

Simplified usage and maintenance processes: these little robots are easy to handle and maintain.



 **Unitaid** Unitaid is an international organization that invests in new ways to prevent, diagnose and treat HIV/AIDS, hepatitis C, tuberculosis and malaria more quickly, more affordably and more effectively.

It accelerates access to innovation so that critical health products can reach the people who most need them.

Unitaid's work facilitates large-scale introduction of health products through funding by The Global Fund, the United States President's Emergency Plan for AIDS Relief (PEPFAR) and by governments.

Unitaid is administered by the World Health Organization.

[www.unitaid.org](http://www.unitaid.org)

## FOR MORE INFORMATION ON UNITAID

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Lead partner in charge of the project coordination.  
Implementation in Guinea.



Implementation in Cote d'Ivoire and Cameroon.



Agence autonome de l'Inserm

France  
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Hépatites

Scientific direction  
and results' promotion.



Implementation in Burundi.