



# SuPARnostic® - a revolution in HIV treatment

Missionpharma is actively participating in the development of a new prognostic test to optimise the timing of HIV treatment. We have entered into a collaboration with Virogates, the inventor of SuPARnostic, which enables us to offer an effective, inexpensive and easy-to-use tool to monitor HIV disease progression, thus improving overall treatment.

## Challenges

- If the treatment of HIV/AIDS is started too early, expensive medicine is used on otherwise healthy patients, who will suffer from a variety of unpleasant and potentially dangerous side effects, at the same time increasing the possibility of drug resistance.
- If drugs are administered too late, treatment will have little effect in fighting the infection, resulting in insufficient immune reconstitution, increased hospitalisation and eventual mortality.

## SuPARnostic

SuPARnostic is an inexpensive and simple prognostic tool that will enhance treatment regimes, improve spending and more appropriately distribute treatment, thus making therapy a more realistic possibility for the millions of currently untreated infected individuals worldwide.

There exist two current gold standards within the HIV prognostic market. The first involves counting the number of white blood cells with defensive ability (CD4 count), while the other counts the amount of HIV virus in plasma (HIV RNA Viral Load). The SuPARnostic's value is similar to that of HIV Viral Load testing, where the concentration of suPAR indicates the speed of the progression of the disease and approach to eventual death.

The advantage with SuPARnostic lies in its low cost, technical simplicity and ease of transportability.

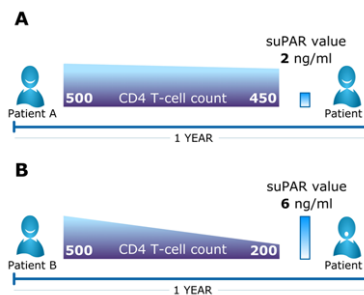
From an economic perspective, knowledge of suPAR levels can reduce the number of CD4 and HIV RNA tests required, thereby leading to overall savings for hospitals and governments. From a clinical perspective, knowledge of suPAR will lead to a more rational use of drugs.

## Benefits

- SuPARnostic is widely transportable and suPAR is stable in plasma for several days at room temperature (several months at 5°C).
- SuPARnostic is simple, inexpensive and predicts disease progression.
- Plasma and serum are easier to process and store than whole blood, and the amount of plasma required for suPAR measurement is minimal (10 µL) compared to HIV-RNA Viral Load (750 µL).
- SuPAR is measured with a simple immunoassay (ELISA) with very few technical requirements and extremely low startup costs.

## A practical example

Blood is drawn from two HIV positive individuals (A & B). The CD4 T-cell count is 500 in both individuals. Patient A has a suPAR value of 2 ng/ml while patient B has a suPAR value of 6 ng/ml.



This informs the clinician that patient A has a slow progressing disease, while patient B is progressing more quickly and thus should be monitored more closely than patient A.

One year later, patient A is likely to still have a CD4 T-cell count of around 4-500, while patient B's count is likely to have fallen more dramatically to 2-300.

If left for 3 years without treatment, patient A will most likely still have a high CD4 T-cell count of 400, while patient B will have developed AIDS.

The SuPARnostic will enable clinicians to determine who best to treat and when, thus reducing incidences of drug resistance and saving lives by administering treatment on time.

*SuPARnostic will be released during 2011. For more information please contact us at [focus@missionpharma.com](mailto:focus@missionpharma.com).*

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