

*Pushing the immune system to its limits*

**Changing the way blood is tested**  
**For a safer blood supply**  
**For a healthier society**



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## The SMARTube<sup>™</sup>

**A unique technology that works!**

The SMARTube<sup>™</sup> technology enables super-stimulation of lymphocytes, thus leading to enhanced production of antibodies in vitro. This enables **better and earlier detection of infections.**

There is a “window period” of weeks, and months from the time of HIV or HCV infection to the time of serum-conversion. Infected yet serum-negative individuals are infectious and their blood transmits the infection to unwary recipients. Infected individuals that are misdiagnosed as negative are a source in spreading the infection further. **More complete detection is the key to curtailing the epidemic.**

Following serology, nucleic acid testing (NAT, PCR) was developed to detect the virus itself in the blood sample. NAT is complex, over sensitive and very expensive. For positive results the virus needs to be present in the blood, which is not always so in such infections.

**Antibody based blood tests**, however, are independent of the location of the pathogen in the body, and thus can be **positive through the whole course of the infection.** In order to use the antibody’s powerful diagnostic potential we need to be able to detect the *immune potential* for making virus specific antibodies, independently of their expression in the body. **Stimunology, using the SMARTube<sup>™</sup>, does that.** Thus it **holds the key to better, more complete, earlier detection of HIV and HCV infections.**

Stimunology means pushing the immune system to produce the antibodies that it knows to make (by virtue of exposure to the virus) even before they are naturally produced in the body. Stimunology is a proprietary, technology platform.

**The SMARTube<sup>™</sup> is a simple to use, cost effective blood pre-treatment device, for more complete, detection of HIV and HCV carriers.** The SMARTube<sup>™</sup> is not a diagnostic test. It is just a test tube with a proprietary solution in which a small blood sample is incubated prior to testing for the presence of HIV and HCV specific antibodies using commercially available kits (both for screening and for confirmation).

The SMARTube<sup>™</sup> has been tested in controlled clinical trials in Israel, China, Mexico and Africa, has been registered in EU (CE Mark), Israel, and other countries. FDA registration has been initiated in the USA.

How the SMARTube<sup>™</sup> is used:

1. One ml. of blood is either directly drawn into the SMARTube<sup>™</sup> (it has a vacuum to draw the right amount of blood in) or is transferred to it with a sterile pipette at the diagnostic lab.
2. The top of the SMARTube<sup>™</sup> is partially unscrewed, and placed in a 37° CO<sub>2</sub> incubator for 3-5 days.
3. The SMARTube<sup>™</sup> is taken out of the incubator and a sample of the supernatant fluid is tested using currently available kits for the detection of HIV or HCV antibodies.

**The SMARTube<sup>™</sup> works for all strains of HIV and HCV.**