



Case Study

Daktari: Microfluidic CD4 cell counting device Easy to use portable Point-of-Care system

Daktari's first product will be Daktari CD4, a CD4 cell counting system portable and robust enough to be used anywhere, from a doctor's office to the most remote settings. Combining groundbreaking innovations in microscale technologies with simplicity in design and use, Daktari brings this essential blood test to parts of the world where millions of people now have access to life-saving drugs, yet cannot receive the best treatment due to inadequate diagnostics.

As simple in concept and as easy to use as a glucose meter, Daktari technology overcomes the two critical barriers to point-of-care testing: complex sample preparation, and fragile, expensive optical sensors.



Microfluidics – Daktari's sample preparation technology, known to specialists as microfluidic cell chromatography, isolates cells and other particles in a miniature sensing chamber, without pipetting, labels or reagents of any kind—none of the complex manual steps that take blood tests out of the hands of clinicians who work beyond the reach of sophisticated labs.

Electrochemical sensing – Daktari CD4 also takes advantage of a second innovation, lysate impedance spectroscopy. The system uses a simple sensor that counts the captured CD4 cells by measuring their internal contents electrically. A handheld instrument interprets the electrical signal, and reports the CD4 count within minutes.

Unencumbered by the lenses, cameras, filters or complex optics that put many diagnostic tests out of reach for clinics, health posts, and mobile caregivers, Daktari CD4 will put the power of accurate test results in the hands of the people who need them.

thinXXS Microtechnology is collaborating with Daktari to create the Daktari CD4 System.

The Daktari CD4 is currently in development and undergoing performance evaluation. More information about this unique microfluidic product you will find at: www.daktaridx.com

