

## NANO-IMMUNOASSAYS FOR ULTRAHIGH SENSITIVE/SELECTIVE DETECTION OF HIV

K.-B. Lee, E.-Y. Kim, C. A. Mirkin, and S. M. Wolinsky, "The Use of Nanoarrays for Highly Sensitive and Selective Detection of Human Immunodeficiency Virus Type 1 in Plasma", *Nano Lett.* **2004**, *4*, 1869 – 1872.

The ability to create antibody nanoarrays will increase our capabilities to create a rapid, simple test to diagnose HIV infection in patients and monitor disease progression using small volumes of serum or plasma. Because this approach was capable of detecting HIV p24 Gag protein at attomole concentrations in complex solutions, it could supplant target- and signal-amplification schemes in biological detection. Although these data show proof-of-concept, this platform shows great promise to be extended to the parallel detection of several infection agents caused by a variety of pathogenic microbes. Such nanoarrays are likely to have a significant impact on infectious disease diagnostics at the point-of-care.

