

**STR ANALYSIS EMPLOYING ACCELERATED HYBRIDIZATION TECHNIQUES
WITH THE NANOGEN CHIP TECHNOLOGY**

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Substantial progress has been made in adapting STR loci to new chip formats. The Nanogen active hybridization system utilizes electricity to move DNA to and from miniaturized assay sites. Assays have been developed for allele determination at the CSF1PO and TPOX loci employing developmental versions of the Nanogen hardware and accompanying software.

A blind concordance study comparing this format with the previously validated *GenePrint®* 1.1 System - Hitachi FMBIO® Fluorescent Scanner combination demonstrates the new format has the potential to provide a reliable gel-free mode of STR testing. Ultimately, we hope to integrate sample preparation and amplification into this detection format, automating as much of the process as possible.