

**VALIDATION FOR NDIS APPROVAL AND IMPLEMENTATION OF AN EXPERT SYSTEM  
(COMPARECALLS<sup>SM</sup>) FOR REVIEW OF OFFENDER SAMPLES**

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Recent and planned mandate expansions for the collection of offender samples for inclusion into the National DNA Index System (NDIS) have highlighted the need to increase the efficiency of data analysis. The NDIS Board has recognized that Expert System(s) are a potential solution to increasing laboratory efficiency by automating review and acceptance of high quality STR DNA data while identifying samples that require manual review. The NDIS Board has recently approved guidelines for the submission of requests for approval of the use and for the implementation of an Expert System(s) for the automated review of DNA database samples.

This talk will present a validation study by an NDIS approved laboratory (Ohio BCI&I) that meets the NDIS guidelines for approval and implementation of an Expert System (CompareCalls<sup>SM</sup>) from Myriad Genetic Laboratories, as applies to the automated review of DNA database samples. These guidelines include demonstrating the reproducibility, precision and sensitivity of the CompareCalls<sup>SM</sup> system and a concordance study of more than 2,400 samples demonstrating that the automated CompareCalls<sup>SM</sup> system is at least as accurate as human 100% Technical Review. Data will also be presented on the actual time saved in the technical review of offender samples utilizing the CompareCalls<sup>SM</sup> system versus human 100% Technical Review.