



B31 Next Generation Expert System for STR Analysis and Review

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After attending this presentation, attendees will understand an improved expert system that will significantly minimize STR analysis and review.

Data analysis and review of STR profiles is a bottleneck for many casework and databasing labs around the world. This presentation will impact the forensic community and/or humanity by providing an expert system that will not only analyze and score profiles more robustly but provide the user the tools to more efficiently and quickly isolate the data that requires manual review as defined by user settings.

The next generation GeneMapper® *ID* Software is designed specifically as an expert system for the analysis of data generated from AmpF/STR® kits to meet the demands of human identification applications, including forensic casework, the generation of convicted offender and population databases, parentage testing, tracking specimens, and identifying missing persons, military personnel and mass disaster remains. The software combines precision-sizing capabilities with reliable allele-calling ability into one intuitive piece of software. This presentation will describe key new features that will provide users with the tools and confidence to review and process data more quickly and efficiently than before. New features include:

- Multi-user database access to allow labs of all sizes to more easily access, process and manage their data. Examples of ways that laboratories can utilize this functionality to streamline their current workflow will be shown.
- E-signature, security, and audit trail functionality will help address chain of custody needs by providing users the ability to better track changes and control data analysis and data access within a lab.
- Novel Process Component Based Quality Values (PQVs) have been expanded. These PQV's are easy to use flags that enable a user to quickly segregate the specific data components that require troubleshooting from data that can be confidently and efficiently passed without further review.
- Improved data viewing functionalities which are designed to minimize the data review process and significantly improve the analysis workflow.

The presentation will highlight the validation of the GeneMapper® *ID* Expert Systems Software for use with validated ABI PRISM® Genetic Analysis instruments as an expert system for single source sample analysis and for the analysis of a range of casework sample types.

Expert System, Data Analysis, GeneMapper®