B164 GeneMapper® ID-X Software v1.0: Expert System and Next Generation Forensic Data Analysis Software for Casework Samples

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After attending this presentation, forensic analysts will gain an understanding of how the GeneMapper® ID-X software can be used to increase the efficiency of data analysis in their laboratory resulting in improvements to overall sample analysis throughput. Attendees will also hear about new tools designed to streamline the analysis of casework evidence samples and tracking of electronic data.

This presentation will impact the forensic science community by outlining a new software workflow and demonstrate how new tools within the GeneMapper® ID-X Software help to alleviate a significant bottleneck in the DNA analysis process thereby increasing overall DNA laboratory throughput.

With the introduction of automation and other new technologies, the bottleneck in the forensic DNA analysis process has shifted to data analysis. GeneMapper® *ID-X* Software v1.0 is designed to allow forensic analysts the ability to analyze and interpret data in less time and with fewer steps. This is accomplished through the implementation of more intuitive data analysis tools, such as an analysis summary, new and enhanced quality values, improved plot displays and label editing options, automated sample-to-sample comparisons and customizable reporting options. In addition, GeneMapper® *ID-X* Software v1.0 incorporates comprehensive security and auditing functionality to maintain electronic data chain of custody. We will demonstrate how this new functionality allows laboratory administrators and/or technical leaders to control the ability to make changes to analysis methods and track any changes made within the software. In addition, access to specific data may also be controlled within the software. Laboratories may choose to use the software as an expert system, a traditional manual data analysis tool or both.

The presentation will demonstrate how the new functionality is incorporated into a logical software workflow that rapidly identifies problematic samples and draws the user's attention to the individual markers and peaks that require further investigation. An analysis summary is automatically displayed allowing users to choose to view only those samples that triggered one or more quality value flags or they may choose to view all samples. The enhanced plot displays and label editing options aid in interpretation of artifacts and enable electronic peer/technical review. The profile comparison tool quickly identifies potential contributors to sample profiles within the project as well as provides a mechanism to run blind quality control sample checks. Having the ability to customize reports allows labs to better integrate exported files with their existing LIMS and/or other downstream applications.

GeneMapper® ID-X Software, DNA Data Analysis, Laboratory Workflow

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