

GeneMarker® HID: DEVELOPMENT AND VALIDATION OF A NEW SOFTWARE TOOL FOR THE ANALYSIS OF STR DATA

Mitchell Holland, Ph.D., Penn State University, University Park, PA 16802; and C.S. (Jonathan) Liu, Ph.D.,

David Hulce, Ph.D, and Wan Ning, SoftGenetics® LLC, State College, PA 16803

User Friendly Interface

<u>Significantly decreases analysis time</u> by using a "smart" software interface approach to eliminate the need for constant intervention by the forensic DNA analyst; e.g., quickly scroll through data in different formats and rescale RFU values in different samples, loci and dye panels <u>automatically</u>.





User-Definable Parameters and Tools

GeneMarker HID allows the user to define specific parameters such as minimum and maximum RFU thresholds, stutter filters, and quality assessment thresholds. In addition, tools have been designed to remove the need to perform routine tasks (e.g., assessing the GS500 250 bp ILS peak).



Accurate, Quality Assessment of STR Data

Side-by-side comparison of analyzed data from single source, mixed and LCN samples using GeneMarker HID and another commonly used software package was conducted to support the <u>validation of GeneMarker HID as a reliable software package</u> for forensic STR analysis.



Adaptable Printing and Reporting Features

GeneMarker HID will <u>print electropherograms and analysis reports in bulk</u> for all or selected samples. Analysis results can be sorted and manipulated to meet report requirements and saved as a text file for input into a LIMS or other database system (including <u>CODIS exportable files</u>).



Many thanks to John Fosnacht and TammySerensits of SoftGenetics for their support and assistance