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Illumina launches NGS Solution for Forensic Genomics

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Illumina has announced the launch of the MiSeq FGx Forensic Genomics System, the first fully validated forensic next-generation sequencing (NGS) system. The new system simultaneously interrogates short tandem repeats (STR) and other valuable genetic markers, including single nucleotide polymorphisms (SNPs), to provide informative DNA profiles.

The system enables more robust analysis of a broader range of genetic markers in a single workflow than previous technology allowed, supporting the reliable analysis of both routine and challenging forensic DNA samples.

Designed in collaboration with leading forensic genomics and human identification experts, the MiSeq FGx System leverages Illumina's sequencing by synthesis (SBS) chemistry. Compatible with existing DNA databases, including the Combined DNA Index System (CODIS), the system can be used for criminal casework and in a range of situations, including mass disasters, missing persons, and unidentified human remains.

In addition to the MiSeq FGx DNA sequencer, the system includes the ForenSeqTM DNA Signature Prep Kit and ForenSeq Universal Analysis Software. This sample-to-answer solution will enable labs to maximize the information derived from a sample, generating more data from a single test than previously possible, and eliminating the need for multiple rounds of partial, iterative testing.

"Several years ago, Illumina assembled an experienced forensic team and challenged them to develop a solution leveraging our technology to revolutionize the way forensic laboratories process and resolve their cases", said Mr Matt Posard, senior vice president and general manager, New and Emerging Opportunities, Illumina.

"Together with input from the global forensic DNA community, we are proud to launch the MiSeq FGx Forensic Genomics System. We expect it will be used to alleviate the mounting backlog of investigative samples, helping to solve cold cases, and exonerate the innocent," he added.