**PARADNA®: ADVANCE KNOWLEDGE TO THE INVESTIGATOR**

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ParaDNA® indicates, right from the start of your investigation, whether or not samples collected at the crime scene contain human DNA and which of these are most likely to deliver investigative leads. It only takes 75 minutes to screen samples and acquire this vital advance knowledge using fluorescent HyBeacons™ technology to amplify a subset of the globally accepted STR loci familiar to forensic practitioners everywhere. Quickly identifying and targeting the right samples allows the DNA screening results to complement submissions policies. ParaDNA does not supplant existing STR analysis, but augments the process and could save significant time and cost by effectively directing the investigative process.

Law Enforcement personnel and Crime Lab analysts can be quickly trained to screen a range of evidence types collected from volume crime scenes to determine whether samples are suitable for submission to the lab for more detailed analysis. Using an innovative sample collector, only the smallest amount of training is required to enable anyone on the investigative team to collect, assemble and analyse DNA. Once assembled, the closed reaction system is sensitive and safe, requiring no further human interaction. It can analyse four samples concurrently, but completely independently of each other. The results indicate whether there is human DNA present in sufficient quantity to generate a conventional STR profile upon submission to the laboratory. They also provide an indication of the sex of the donor of the crime stain. In addition to the system discussed here, a fully portable, field operable system is currently in development.

This poster presents the underlying biochemistry of the HyBeacons approach to STR typing by fluorescent hybridisation, validation data that indicates the potential utility of the system and also some case scenarios where the application of the technology would be expected to aid the investigative process through more intelligent submissions policy and greater success rates from those items that are submitted. ⌘