

BUILDING THE FUTURE: THE ANDE RAPID DNA SYSTEM IS NDIS APPROVED. WHERE DO WE GO FROM HERE?

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Over the past two decades, NDIS-participating laboratories have laid the foundation for Rapid DNA Identification in the booking station by developing robust technologies, quality systems, and policies to allow reproducible generation, interpretation, and utilization of STR profiles. As a result, forensic STR processing is proven and well-regulated, allowing the CODIS DNA databases to be populated with high quality data. The Rapid DNA Act of 2017 has the potential to stimulate in the most significant change to forensic DNA processing since the introduction of CODIS in 1998; maintaining high quality is of paramount importance.

Since STR testing was introduced to aid in criminal investigations, forensic laboratories have heavily relied on the developmental and internal validation process to ensure quality and reliability. Rapid DNA has followed the same path - recognizing that a comprehensive and thorough developmental validation is critical to demonstrate the reliability, reproducibility, and robustness of the technology. Six forensic and research laboratories participated in the ANDE Rapid DNA developmental validation, including the FlexPlex assay and the integrated Expert System, testing more than 2,000 buccal swabs. The work has been subjected to the rigorous review for new technologies being used to generate data for CODIS and, earlier this year, received prestigious NDIS approval for buccal swab processing.

NDIS approval – paired with the Rapid DNA Act – not only opens the door for use in accredited forensic labs, but also paves the way for deployment for booking station arrestee enrollment, family reunification during mass disasters, and use for other military, immigration, homeland security, and general criminal investigative applications. As the community moves to implement this technology, the next steps involve conducting internal validations, performance checks, and designing strong and feasible implementation programs so the benefits can be fully realized. This poster will explore the next steps after NDIS approval - including how to expeditiously conduct an internal validation, development of SOPs, planning for booking station implementation.