

Validated Solutions for Challenging Forensic Problems

Maximizing DNA Recovery from Challenging Samples. Client needs and Internal Research & Development efforts fuel the development and validation of SigSci's novel methods and technologies at the Center for Advanced Genomics. Our methods for maximizing DNA recovery in both yield and quality from forensic samples subjected to challenging conditions have generated CODIS-eligible DNA profiles from spent shell casings, and high-density SNP profiles from DNA inputs 1000 times lower than industry standards. Our FGG workflows are optimized for degraded samples from a range of sample types including blood, bone, buccal swabs, hair, teeth, and semen. Signature Science analysts target forensically relevant markers for ancestry, identity, phenotype, and kinship estimation.

Backlog Reduction Support. Recognizing the impact of untested sexual assault kits across our country, a major thrust of Signature Science's targeted research has been dedicated to supporting the criminal justice system's efforts to address the backlog. Our Forensic DNA Laboratory has optimized workflow processes to deliver efficient and comprehensive analyses, scalable to meet the expansion needs of government agencies. Using advanced techniques for DNA recovery, automation, mixture deconvolution, and data

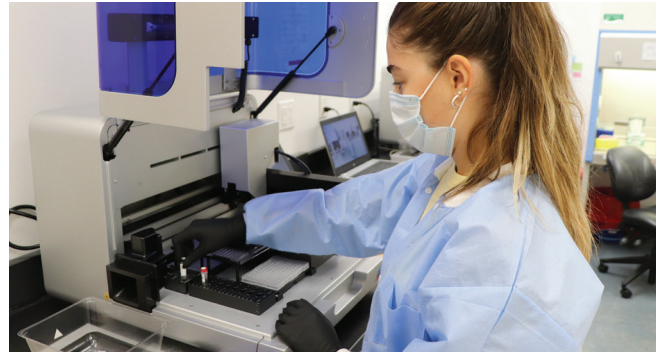


management, we offer the most probative screening and DNA analysis strategies, resulting in timely generation of CODIS-searchable profiles.

Training and Validation Services. Our mission is to help solve every case, and we can help arm DNA analysts and laboratories with the knowledge to get it done. Our topical, practical enhanced workflow training courses and validation services are tailored to the needs of individual laboratories, departments, and agencies and can be held at our Austin and Charlottesville locations, or onsite at your agency.

signature
science[®] LLC

www.signaturescience.com



To meet our clients' critical objectives, Signature Science delivers uncompromised, high-quality results, on-time, every time.

Forensic Services:

- DNA Casework
- DNA Extraction from Challenging Sample Types
- FG G Methods for Degraded DNA Testing
- FRISC® for Recovering DNA from Spent Shell Casings
- Serological Testing
- Sexual Assault Kit Backlog Reduction
- Probabilistic Genotyping
- Expert Witness / Consultation Training

Customer Focus:

- Direct Access to DNA Analysts
- Technical Expertise
- Proven On-Time Track Record
- Efficiency for Trial Preparation and Testimony
- High Success Rate for Challenging Samples when DNA is Present

Instruments/Methodologies:

- AB 7500 Real-Time PCR
- AB 3500 xL Genetic Analyzer
- Investigator 24plex QS, GlobalFiler™, and Yfiler™ Plus Amplification
- Male Screening / Stop-at-Quant Using Investigator Quantiplex™ Pro
- GeneMapper™ ID-X Software
- STRmix™ Probabilistic Genotyping Software
- STACS®CW LIMS
- ForenSeq Kintelligence using MiSeq FGx™ for FG G
- Global Screening Array using iScan for FG G
- Illumina NextSeq 2000

Credentials/Standards:

- ANAB Accredited Testing Lab ISO/IEC 17025:2017; AR 3125 (see scope document)
- FBI QAS: July 2020
- Accredited by the Texas Forensic Science Commission
- All Analysts Hold TFSC Licenses
- Licensed by the State of Maryland

Have questions? Need a quote?

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