

# Advanced DNA Methods Give New Life to Tough Cases



Forensic Investigative Genetic Genealogy is a powerful tool that combines advanced DNA testing methods optimized for use on degraded and low-DNA input samples with traditional genealogical research. To date, FIGG has helped to clear over 1,400 cases.

While it is often the solving of decades-old cold cases that makes the headlines, FIGG can be used to provide valuable investigative leads across a broader range of case types, particularly where traditional STR testing has not delivered results. This includes cases involving unsolved violent crimes, unidentified human remains, and cases

in which there are serious and ongoing threats to public safety.

Whether your case is active or cold, if there is evidence, there is hope. Signature Science's experts are committed to collaborating with you to maximize your limited resources and deliver actionable leads. Through our complimentary case consultation process, we will discuss the details of your case and identify the samples with the best chance of producing a probative DNA profile using the accredited methods that meet the rigorous standards expected when DNA evidence is presented in court.

signature  
science<sup>®</sup> LLC

[www.sigsciforensics.com](http://www.sigsciforensics.com)

## Signature Science's Comprehensive FIGG Offering Includes Advanced DNA Methods that are:

### ACCREDITED

**ACCREDITED** ■ Signature Science's Advanced Genomics Laboratory has been issued accreditation by ANAB, the ANSI National Accreditation Board, to the ISO/IEC 17025:2017 quality standard as a testing laboratory for Single-Nucleotide Polymorphisms (SNPs) using Massively Parallel Sequencing (MPS). In addition, the laboratory was successfully assessed for conformance to FBI Quality Assurance Standards for Forensic Testing Laboratories. This means that our qualified and proficient staff employ methods that are validated, and follow a set of standardized, defensible protocols and QA/QC best practices.





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**OPTIMIZED** ■ We don't just follow manufacturer protocols—we optimize and refine them to give even the most challenging sample types the best possible chance of success. Our team has demonstrated successful genotyping from DNA concentrations equivalent to approximately a single human cell.



ACCESS THE  
VALIDATION  
STUDIES

		
	Targeted Sequencing	Microarray
Instrument(s)	MiSeq FGx	iScan
Kit	Kintelligence	Global Screening Array (GSA)
Markers	10,000+	600,000+
Mfr. Input	1 ng	200 ng
SigSci Input	0.05 ng – 1 ng	0.2 ng – 200 ng
Throughput	Low	High

**PERFORMED IN-HOUSE** ■ We perform every step in the FIGG process in our own accredited laboratories. Where others may see a dead end, or where 'inconclusive' results have been previously delivered, our forensic scientists apply their expertise and optimized methods to recover the best DNA genotype profiles from the worst samples imaginable. Depending on the sample submitted and the testing plan identified, these steps can include DNA extraction from range of sample types (including skeletal remains), quantification, SNP processing, data analytics/bioinformatics, and genealogy services.



LEARN  
MORE ABOUT  
FIGG

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