If They Said FGG Wasn't an Option for Your Case, Let's Look Again.

SNP Genotyping by Forensic Scientists and Optimized for Forensic Samples.

Forensic scientists at the CAG offer a microarray genotyping-based FGG service, featuring sample extract quantification and preparation for SNP genotyping by CAG forensic scientists using the Infinium® Global Screening Array (GSA)-24 Kit [Illumina]. Samples are run in-house on an Illumina iScan®.



Improved Sensitivity for Forensically Relevant

Sample Types. In their 2020 developmental validation of SNP genotyping using the GSA for samples run on the iScan, CAG scientists demonstrated sensitivity to DNA input levels of 0.2 ng, three orders of magnitude less than the manufacturer's recommended input of 200 ng.

Experienced Genealogical Research. AdvanceDNA, an identity research firm, provides forensic genealogy research support to the CAG's FGG cases.

FGG Accredited to Forensic Standards – Anticipated

Spring 2022. To best serve the criminal justice system and forensic community, the CAG is pursuing ANAB accreditation for its existing FGG-supporting laboratory methods. Signature Science's forensic DNA casework laboratory currently operates under ANAB accreditation in the field of Forensic Testing and discipline of biology, meeting or exceeding requirements of ISO/IEC 17025:2017, ANAB 17025:2107 Forensic Science Testing and Calibration Laboratories Accreditation Requirements, and FBI Quality Assurance Standards for Forensic DNA Testing Laboratories: 2020.



Next Generation Sequencing for FGG – Coming Fall 2021.

Forensic scientists at the CAG are validating the Verogen ForenSeq® Kintelligence workflow for the MiSeq FGx® Sequencing System:

- FGG solution based on next-generation sequencing technology.
- MiSeq FGx platform approved by FBI for use in generating DNA profiles for upload to the National DNA Index System (NDIS).
- Targets forensically relevant markers, along with ancestry, identity, and phenotype markers, to estimate kinship.
- Optimized for degraded and low-input DNA samples from a range of sample types including blood, bone, buccal swabs, hair, teeth, and semen.

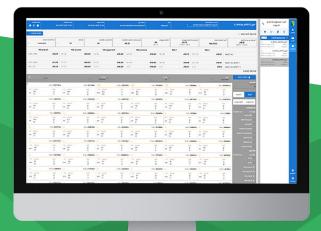


 Long range kinship estimation in GEDmatch PRO™ informs the construction of a family tree.

AdvanceDNA, an identity research firm, provides forensic genealogy research support to the CAG's FGG cases. Once validation is completed, the CAG will add the workflow to its FGG offering.

See the Press Release







This kit could open up the FGG space to our clients who have been holding on to really challenging samples.

Christina NealForensic Research Team Lead



Christina Neal, MS, PMP
Senior Scientist • Technical Leader
cneal@signaturescience.com
(512) 583-2477

David Russell, MSForensic Scientist • Unit Manager

drussell@signaturescience.com (512) 583-2268 8329 North Mopac Expressway Austin, TX 78759

www. signaturescience.com

