



INDIANA STATE POLICE

FORENSIC SERVICES DIVISION

PHYSICAL EVIDENCE BULLETIN

FAMILIAL SEARCHING

INTRODUCTION:

There are times when a DNA profile of a putative perpetrator is detected in a sample from a crime scene, but there may not be a hit in the Combined DNA Index System (CODIS) with a direct search. A familial search (FS) is a second search of convicted offender and arrestee profiles with the specific intent of detecting offenders who may be first-order biological relatives (i.e., parents/offspring and full siblings) of the source of the crime scene DNA sample.

I. CASE SELECTION

- A. Familial searching is a more labor intensive and time-consuming undertaking than a traditional CODIS search. Only cases of significant public safety concern will be considered. Before requesting a FS, please ensure all of the following are true:
 - 1) Violent crime against a person (e.g., homicide or sexual assault) or unidentified human remains case.
 - 2) All other reasonable investigative leads have been exhausted.
 - 3) The profile has already been searched in CODIS with no hits.
 - 4) Both the investigating agency and prosecuting agency are committed to moving forward with the case if the source of the DNA is identified.
- B. Familial searching has biological limitations. The laboratory will review the profiles developed in the case. A FS can only be performed if:
 - 1) The profile is a single source or fully deduced single source male profile.
 - 2) There is enough sample remaining to perform additional DNA testing.
 - 3) A full profile is obtained for both autosomal and Y-STRs.

II. SEARCH RESULTS

- A. Closely related people are expected to share a higher amount of DNA than unrelated people. A familial search identifies DNA profiles that are similar enough to the profile in question to potentially be a parent, child, or full sibling of the perpetrator. However, since this is not an exact match, these search parameters also return candidates who are not true relatives.
- B. Y-STR testing will be used to eliminate male individuals who are not of the same male lineage.

- C. Individuals who have the genetically predicted relationship to the remaining potential relatives identified in the search might be the source of the crime scene sample.

III. FOLLOW UP/CONFIRMATION

- A. It should be noted that any names identified using a FS are NOT the perpetrator of the crime. They are possibly a close relative of the perpetrator.
- B. The privacy of all potential relatives identified in the FS process must be respected. Potential relatives should only be contacted if it is deemed necessary to further the investigation, and their names should not be released publicly.
- C. Any suspect identified must be treated like any other investigative lead. After traditional police investigation, if the agency chooses to pursue any potential suspects, a new DNA sample must be obtained from the person of interest for direct comparison to the evidence profile via the normal DNA analysis process by the Indiana State Police (ISP) Forensic Services Division (FSD).
 - 1) The forensic DNA comparison can be completed with an evidentiary standard, secondary standard, or surreptitious sample. See ISP FSD's [Physical Evidence Bulletin \(PEB\) – 17 DNA](#) for details.
 - 2) If the sample is from unidentified human remains or if the person of interest is no longer living, a forensic relationship comparison may be completed by the ISP FSD to confirm identity. See ISP FSD's [PEB – 21 Missing Persons-Unidentified Human Remains](#) for details.

IV. CONTACT INFORMATION

For more information, please contact the Biology Section at the ISP Indianapolis Regional Laboratory at (866) 855-2840 with any questions.

ISP Regional Laboratory hours are 8:00 a.m. to 4:30 p.m.; Monday through Friday.