

## **Wisconsin Investigative Genetic Genealogy (WIGG) Guidelines**

Investigative Genetic Genealogy (IGG) is a technique that combines genetic testing with traditional genealogical research to generate investigative leads in unsolved violent crimes. Given our expertise in forensic genetics, the Division of Forensic Sciences (DFS) is in a position to offer guidance and act as liaisons to agencies seeking these services. Outlined below are our suggested guidelines for evaluating suitability for and conducting IGG. Guidelines have been developed to adhere to the US DOJ Interim Policy on Forensic Genetic Genealogical DNA Analysis and Searching<sup>1</sup>.

### **Case Considerations**

1. Eligible case types include:
  - a. Unsolved violent crimes such as: homicide, sexual assault, other offenses specifically authorized by the direct to consumer (DTC) database
  - b. Unidentified human remains (UHR) of a suspected homicide victim
  - c. Cases that present a substantial and ongoing threat to public safety or national security
2. All reasonable investigative leads have been exhausted and the case remains unsolved
3. A forensic unknown STR DNA profile attributable to the putative perpetrator or an STR DNA profile from the UHR has been developed and entered into the Combined DNA Index System (CODIS). Routine searching has failed to produce a probative match
4. The case meets DFS requirements for familial search and a familial search has been conducted. The search has either failed to produce investigative leads or the investigative leads have been exhausted and the case remains unsolved
5. The investigative agency has consulted with the prosecuting agency, and both agencies agree that IGG is an appropriate and necessary step
6. The agency has funding or is willing to pursue external funding for outsourcing costs of IGG
  - a. DFS is available to provide guidance on vendor services and cost estimates

### **Sample Considerations**

1. Suitability is dependent on several sample characteristics
  - a. Mixture status, quantity, quality, degradation, and whether sufficient extract and/or sample remains
    - i. DFS may assist in evaluating these characteristics to determine suitability

### **Pursuing IGG**

1. The agency shall identify themselves as law enforcement to vendor laboratories and DTC service providers
2. The agency shall adhere to all of the DTC service provider's terms of service
3. The agency shall only engage in authorized use of a DTC database that explicitly notifies users and the public that law enforcement may use their service sites
4. To the extent possible, the agency shall configure settings in a way that will prevent case information from being viewed by other users
5. Genetic information must only be used for the purposes of identifying the putative perpetrator or UHR, and for no other purpose. It must not be used to identify psychological traits or predisposition to medical condition/disease
6. The agency understands that information provided through IGG constitutes investigative information only
  - a. No arrest will be made based solely on information derived from IGG

- b. Associations must be confirmed through direct comparison of a person of interest's (POI) STR DNA profile to the forensic unknown profile
  - c. If IGG and subsequent genealogical research identifies potential third parties who may have a genetic relationship to the POI, the agency shall receive informed consent prior to collecting any reference samples for testing. If the agency believes that obtaining this consent could jeopardize the investigation, the agency shall consult with the prosecuting agency prior to collecting any surreptitious samples
  - d. Covert collection of reference samples must be carried out in a lawful manner
7. The agency shall take reasonable precautions to protect the identity and privacy of any third parties identified during the investigation
8. If the case is solved during the IGG process, IGG will cease immediately
9. At the conclusion of the investigation
  - a. All profiles, account information, and data shall be retained by the agency
  - b. The agency shall request the return of any remaining sample material supplied to the vendor laboratory
  - c. The agency shall request that any profiles and associated account information uploaded to the DTC database be expunged

*[1] US DOJ Interim Policy on Forensic Genetic Genealogical DNA Analysis and Searching, Effective 01 November 2019 (<https://www.justice.gov/olp/page/file/1204386/download>)*