

Questions from Chairman Westerman

1. At what stage does Othram typically become involved in an MMIP investigation?

Othram becomes involved after traditional identification methods, such as fingerprints, dental comparisons, conventional DNA testing, or CODIS searches, have not produced an identification or meaningful investigative lead.

There is no scientific reason, however, that our forensic DNA technology must be limited to cases that have already become cold. Earlier involvement may preserve limited evidence, generate investigative leads more quickly, and prevent an investigation from remaining unresolved for years. For active cases, we should be using these new tools as quickly as possible because many cases there could be ongoing threats to public safety if a violent offender continues to commit crimes until they are caught.

2. Why is modern forensic DNA important to generating new leads for MMIP cases?

Traditional forensic DNA relies on approximately twenty genetic markers to determine whether biological evidence matches a known individual or close biological relative. Modern forensic DNA examines hundreds of thousands of genetic markers across the genome.

This is not simply more information. It is a fundamentally different scale of information, making it possible to identify more distant biological relationships and generate investigative leads that previously did not exist. Traditional forensic DNA remains indispensable for confirming identity and supporting criminal prosecutions. Modern forensic DNA extends those capabilities into investigations that historically reached an investigative dead end because no suitable comparison sample existed.

3. How does Othram ensure that the DNA evidence it analyzes is admissible in court?

Our laboratory is accredited by the ANSI National Accreditation Board to ISO/IEC 17025:2017 for Single-Nucleotide Polymorphism testing using Massively Parallel Sequencing. We maintain a documented quality system that includes validated methods, qualified personnel, chain-of-custody procedures, quality controls, and records that allow our work to be independently evaluated.

Our technology has also been tested through the adversarial legal process. Othram's forensic genetic genealogy work has been examined in a Daubert hearing, admitted by the court, and presented at trial. Othram experts have testified in multiple jury trials and have been cross-examined regarding SNP testing and forensic genetic genealogy. To date, Othram's work has never been excluded or found inadmissible, and no Othram expert has been excluded from offering expert testimony.

Admissibility ultimately remains a determination for the court. Our responsibility is to ensure that our science, documentation, and testimony can withstand rigorous scientific and legal scrutiny.

4. How has forensic testing contributed to Operation Spirit Return, and how could that success be expanded?

Operation Spirit Return applies modern forensic DNA to missing and unidentified American Indian and Alaska Native individuals, including unidentified-human-remains cases that are rarely resolved through CODIS alone. By recovering comprehensive DNA profiles from degraded or fragmented remains and identifying distant biological relationships, Othram is helping the BIA Missing and Murdered Unit solve cases that historically had virtually no path to identification.

While I cannot speak on behalf of the Bureau of Indian Affairs, Othram has had the privilege of supporting dozens of cases through this program. Some involve active homicide investigations and have not yet been publicly announced. We are thrilled by their progress and anticipate that the responsible authorities will announce several more solved cases this fall.

As I understand the current program structure, access through the Missing and Murdered Unit and Operation Spirit Return is limited principally to cold cases. The same technology can provide value in active homicides, unidentified-remains cases, and mass-fatality incidents. Expanding the program and providing sustained funding would allow these capabilities to be deployed before today's investigations become tomorrow's cold cases.

5. What is DNASolves, and how is it aiding human-identification investigations?

DNASolves is a consent-based genetic genealogy database created specifically to support law enforcement human-identification investigations. People may voluntarily contribute an existing DNA profile or provide a sample for testing. The database is not used to provide public genealogy or health services, and contributors may request removal of their information at any time.

When an unknown forensic profile shares DNA with a contributor, that biological relationship may provide a lead concerning the identity of the unknown person. Investigators can then evaluate that lead, identify potential relatives, and confirm the identification through appropriate reference testing and official procedures.

5(a). How does DNASolves complement CODIS?

DNASolves complements CODIS by using comprehensive SNP profiles to identify more distant biological relationships among voluntary contributors. This can generate investigative leads when CODIS does not produce an association because no suitable offender, missing-person, unidentified-remains, or close-family comparison profile is available.

Those leads can then be investigated and confirmed through conventional DNA testing. If the resulting STR profile meets applicable legal and technical requirements, a CODIS-participating laboratory may upload it to CODIS, where it may link the individual or evidence to additional cases.

Put simply, DNASolves can help investigators put a name behind an unknown DNA profile. Once that identification is confirmed and an eligible profile is entered, CODIS has more information to work with and becomes even more valuable.

6. What is unique about Othram's technology that most police departments do not typically have access to?

The most important difference is the question the technology can answer. Traditional forensic DNA is primarily a technology for comparison: Does this evidence match someone we already know? Othram's technology can begin with biological evidence and generate leads concerning identity even when there is no known suspect or direct database match. Instead of asking only, "Was this known person there?" investigators can begin asking, "Who is this person?"

Answering that question requires more than a single instrument or test. It requires specialized DNA-testing equipment, new laboratory workflows, software, databases, and trained personnel that most police departments and public laboratories do not yet have.

Othram is using this infrastructure today to help agencies solve cases. At the same time, we are working to deploy our technology and expertise to public forensic laboratories so they can ultimately develop these capabilities themselves. The long-term objective is to make modern forensic DNA broadly available throughout the public forensic system.

6(a). How can agencies with limited resources leverage Othram's advancements and tools?

An agency does not need its own laboratory, specialized equipment, or forensic personnel to work with Othram. We work with some of the nation's most advanced forensic laboratories, including the FBI, as well as small and rural agencies that may not have a laboratory or a forensic scientist on staff.

Because Othram can manage the process end to end, from evidence assessment and laboratory testing through analysis, genealogical research, and reporting, we can provide agencies of every size with access to the same advanced capabilities. The agency retains control of the investigation without having to build or maintain the underlying infrastructure.

The principal challenge is funding and deployment. Congress should ensure that Tribal Nations and the investigators, medical examiners, and coroners serving Indian Country can access modern forensic DNA regardless of geography or local resources. Access should depend upon the needs of the investigation, not the size of the agency or the age of the case.

7. What unique challenges has Othram encountered when assisting MMIP investigations in Indian Country?

MMIP investigations frequently span multiple jurisdictions, contain incomplete records, and involve evidence that has been exposed to the environment for extended periods. Families may be dispersed across different communities or may be unaware of the procedures for submitting DNA reference samples. In many investigations, there is no suspect, no immediate family reference sample, and no obvious investigative lead.

It is important to recognize that these cases are not unresolved because investigators lack commitment. Tribal, federal, state, and local agencies have often worked them with dedication for many years. The challenge has frequently been that the available scientific tools could not answer the questions investigators most needed answered.

Questions from Chairman Gosar

1(a). Has Othram examined any mass graves in Mexico for Tribal remains?

Othram has not been retained by Mexican authorities to examine remains recovered from the mass graves referenced in the question. Identifying individuals recovered from mass graves is directly aligned with our mission to restore names to the unknown and provide answers to families. We would be honored to assist the appropriate Mexican authorities in this important work.

1(b). Has Mexico contacted Othram for assistance identifying remains in these mass graves?

Othram has not been retained by Mexican authorities to assist with identifying these remains. If requested, we would welcome the opportunity to work with the appropriate authorities, forensic institutions, families, and affected communities. Helping identify the unknown, particularly when families have waited years for answers, is central to Othram's mission.

2. In addition to LiDAR detection and DNA identification, what other emerging technologies may improve MMIP reporting, response, and recovery?

Many unresolved investigations are not only forensic problems; they are also information-access problems. Important evidence may remain scattered across paper files, handwritten notes, audio cassettes, old video recordings, and disconnected computer systems.

Digitizing and transcribing these materials can make decades of investigative information searchable. Artificial intelligence can then help organize the information, connect names, locations, dates, and events, identify patterns across cases, and bring potentially important leads to an investigator's attention.

Othram is among the vendors developing and offering these AI-assisted tools, and we make them available to agencies across the United States. These technologies do not replace investigators. They allow investigators to review far more information, preserve earlier work, and identify connections that might otherwise remain buried in old records. In our work, we have seen this substantially speed up investigations and it is very cost-effective.

3. Is there anything the hearing did not address regarding the MMIP crisis that you would like to address?

The principal challenge is no longer scientific capability. The principal challenge is deployment. The hearing appropriately examined how modern technology can help resolve long-unsolved cases. The same capabilities can also provide value in active criminal investigations, recent missing-person cases, unidentified-remains investigations, and mass-fatality incidents. There is no reason to wait until an investigation has remained unresolved for years before applying the best available science.

Congress should provide sustained appropriations and ensure that modern forensic DNA is available to Tribal Nations, law enforcement agencies, medical examiners, and coroners throughout Indian Country whenever it can be scientifically, legally, and responsibly applied. Funding should support the complete investigative process, including evidence assessment, laboratory testing, genealogy where appropriate, confirmation, family notification, and repatriation.