



### A99 DNA Identifications of Migrant Remains at the Pima County, AZ, Office of the Medical Examiner (2000–2019)

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**Learning Overview:** After attending this presentation, attendees will understand the methods used by one border medicolegal office to achieve more than 400 genetic identifications for Undocumented Border Crossers (UBCs).

**Impact on the Forensic Science Community:** This presentation will impact the forensic science community by providing a successful model for the facilitation of genetic identifications of missing migrants that is achieved through the rigorous maintenance of data and close inter-agency collaborations.

The Pima County Office of the Medical Examiner (PCOME) implements several methods to aid in the positive identification of the more than 100 unidentified UBCs reported to the Office every year. These methods include fingerprints, visual identifications, and DNA comparisons, among several others. The PCOME has a steady identification rate of approximately 65% of cases, with a trend toward DNA identifications becoming more prevalent over the past eight years. More than 400 individuals have been scientifically identified using DNA analyses since 2000, despite funding issues that resulted in a multi-year backlog of a large proportion of unidentified cases. A 2018 National Institute of Justice (NIJ) Coverdell Award has resulted in the necessary funding to resolve this backlog, with additional identifications expected in the fall of 2019.

Given the circumstances surrounding the majority of unidentified individuals examined at the PCOME, primarily their undocumented and foreign national status, a multitude of resources have been used to aid in their identification. Best efforts are made by the PCOME with local and national law enforcement to establish identifications in the most rapid and cost-effective manner possible, but in many cases DNA analysis becomes the only available option. Behind fingerprints, genetic comparisons are the second-most-frequent method of scientific positive identification used at the PCOME and have accounted for roughly 21% of identifications. As of mid-2019, more than 1,200 samples have been analyzed by Bode Technology™, and an additional 176 are in the beginning stages of analysis; other laboratories, including domestic and international partners, have processed more than 300 PCOME cases. To date, 401 individuals have been scientifically identified using DNA profiles developed by at least four domestic laboratories and through the Mexican Federal Police. The majority of genetic identifications for UBCs (354/401) were established through DNA comparisons at Bode Technology™, while government labs have accounted for slightly more than 10%.

Whether the genetic comparisons take place at a private lab or government lab, the PCOME depends on close partnerships with local law enforcement, Non-Governmental Organizations (NGOs), and foreign consulates to support the collection of missing person information and Family Reference Samples (FRS). Among consulates, the PCOME works most regularly with the Tucson, AZ, office of the Mexican Consulate, which has supported the identification of 325 of the 401 cases, either through funding DNA collection and comparison, providing antemortem data, or completing information needed for case closure and death certificate completion, or all of the above. Similarly, the Guatemalan Consulate has supported 46 such cases, the Honduran Consulate 16, and the Consulate of El Salvador with 10 cases.

In addition to the support from foreign consulates, the PCOME depends on close collaboration with two key NGOs, the Colibrí Center for Human Rights, and the Argentine Forensic Anthropology Team (EAAF). Both NGOs provide families of missing migrants with a safe and secure mechanism to report missing loved ones and to submit DNA for the purposes of comparison against unidentified remains examined at the PCOME. As of the summer of 2019, the Colibrí Center for Human Rights has facilitated 48 genetic identifications and the Argentine Forensic Anthropology Team with 50 in collaboration with the PCOME. All such identifications include multi-agency partnerships, with consulates providing the necessary governmental link to ensure families are able to repatriate remains to their home countries. Some successful identifications included both Colibrí and EAAF, with one NGO collecting family reference samples in a United States state, and the other within the family's country of origin.

The prolonged duration and wide geographic scope of the international crisis that has resulted in the PCOME undertaking the identification of close to 2,000 UBCs has necessitated flexibility and creativity. In this context, the power of the science and technology of DNA can only be realized through international collaboration and public-private partnerships.

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#### Undocumented Border Crossers, DNA Identification, Border Issues