



Criminalistics Section - 2012

A167 Update on DNA-PROKIDS: Fighting Human Trafficking With DNA Analysis

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After attending this presentation, attendees will know about the impact and success of the DNA-PROKIDS program that has generated databases in more than ten countries and has solved over 350 cases of child trafficking and illegal adoptions.

This presentation will impact the forensic science community by showing how human trafficking and illegal child adoptions are closely related, and how DNA analysis has shown to be an invaluable tool to fight these crimes.

Human trafficking has become one of the main criminal problems throughout the world, and it is rapidly becoming the primary crime in economic terms. One forensic science-based approach that can assist in the effort to combat human trafficking is through the use of the tools for human identity testing. DNA analysis can play an important role in verifying alleged kinship relationships. Forensic DNA testing for identification of human remains and routine casework is used throughout the world and is a technology that is readily accessible. Nevertheless, the use of DNA analysis is not used extensively in the efforts to address the epidemic of missing children. More than one million children are reported as actively “missing,” and likely this number is grossly underestimated. Many of these missing children have been separated from their families and are being trafficked for various exploitations. DNA typing of these children and alleged relatives can verify or refute biological relationships that could be extremely useful in securing trafficked and exploited children and in assisting law enforcement in identifying traffickers and their networks. Moreover, database of DNA profiles from parents who report missing children and children who are offered for adoption or abandoned will facilitate the identification process on national and international scales. In 2006, the University of Granada, Spain, initiated the DNA-PROKIDS Program, and in 2009 the Center for Human Identification, University of North Texas Health Sciences Center, joined in the program as a primary partner. In addition to providing a DNA analysis service, DNA-PROKIDS is a program that develops DNA collection kits, protocols, methodologies, software, and educational materials for the use of DNA typing of these trafficked and abandoned children, and to assist in combating trafficking. This program has been able to function by support from the Spanish Government, several large Spanish banks including BBVA, Santander and CajaGranada-BMN, and donations from the Life Technologies Foundation.

Two databases are needed to form a functional search capability for child identification. One is a Reference Database (RD) of DNA profiles (composed primarily of autosomal STRs, and may include Y-STRs and mtDNA markers) obtained from biological samples (buccal swabs) voluntarily provided by mothers and other family members of missing children. The other database is a Questioned Database (QD) of DNA profiles (composed of the same genetic markers used for profile generation for RD) obtained from children who have been found without their families, are being exploited, or are known to be victims of human trafficking. Each country that has agreed to be part of the DNA-PROKIDS network maintains its own RD and QD. The DNA profiles are searched within and between a country's databases in an effort to identify missing children within the country. International sharing is performed on a case-by-case basis and currently is a manual process. DNA-PROKIDS has partnered with and has supported the development of such DNA databases in six of the countries within Latin America (Mexico, Guatemala, El Salvador, Paraguay, Peru, and the Dominican Republic) and within four of the countries in Asia (the Philippines, Thailand, Sri-Lanka, and Indonesia).

To date, over 2,500 samples have been collected by the different participating countries, and over 330 positive identifications have been made. Some experiences and notable cases will be described. In September 2010, Guatemala passed the Alba-Keneth Law that requires mandatory collection and analysis of biological samples from all children found without relatives and offers, by law, all relatives of missing children the opportunity to donate a biological sample for the DNA-PROKIDS Guatemalan database. It is believed that this is the first law of its kind throughout the world. The database is coordinated in Guatemala through its National Institute of Forensic Sciences (INACIF).

A greater global coordinated effort is needed to continue to identify trafficked and exploited children and to dramatically increase the success that these DNA-PROKID pilots have experienced. The initial results and experiences obtained by DNA-PROKIDS clearly demonstrate the application of forensic DNA analyses and its supporting technical infrastructure can play an important role as a deterrent of this terrible crime.

DNA-PROKIDS, Human Rights, DNA Databases