CREATING A DATABASE OF GENETIC PROFILES FROM UNIDENTIFIED BODIES, BONES, SKELETAL REMAINS AND RELATIVES OF MISSING PERSONS

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The genetic profiles database has been developed with human identification value, for police and judicial investigation purposes and humanitarian objectives, identifying of bodies and search for missing persons.

The development of a database of genetic profiles that allow to store and compare genetic profiles is an indispensable tool for identifying corpses, bones and skeletal remains of unknown origin which is a duty and not only a legal obligation but part of an humanitarian act and a social responsibility.

The social phenomenon of disappearances in Ecuador responds, in most cases, voluntary motivations especially among adolescents.

Family conflicts, studies, economic and migration make many young Ecuadorians leave their homes and are exposed to various risks.

Kidnapping, trafficking, homicide, murdering and at a slower rate, called "involuntary disappearances" associated with criminal acts or illegal activities are main causes of why in our country are being implemented programs of human identification.

To expedite this process of search and find answers to the relatives of people reported as a missing person, the Laboratory of Forensic Genetics of the Judicial Police of Ecuador has created an "in house" database of genetic profiles. This database contains genetic information of relatives of people allegedly missing and genetic profiles of unidentified bodies, bones and skeletal remains.

The database of the Laboratory of Forensic Genetics has been built with amplified genetic profiles with NGM SElect™ kit, however; to perform a comparison and to get a profile match; as a laboratory rule, amplification of extra genetic markers included in the kit PowerPlex® Fusion is performed to confirm the results.

Additionally, we are expanding the database of genetic profiles and including the Y chromosome haplotype amplified with PowerPlex® Y23 kit.

The accurate and timely identification of large sets of human remains depends on the evaluation of a wide range of complex information by a forensics expert. Due to the large amount of genetic profiles generated it is planning to acquire the M-FISys software. M-FISys is uniquely able to make sense of huge quantities of data and to assist in the task of victim identification.