



A18 The Implementation of the Brazilian DNA Database

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After attending this presentation, attendees will learn how the Brazilian DNA Database was planned and implemented as well as understand the perspectives for the evolution of this database. Issues to be addressed include the crime and violence scenario, the evolution of the DNA laboratories, the implementation of the FBI's CODIS, and the architecture of the system and the difficulties of such an effort in a developing country where the Constitution strongly emphasizes the individual rights.

This presentation will impact the forensic science community describing the national DNA database implementation in a developing country and providing elements to better understand the evolution and application of this technology outside the United States and Europe.

In a dedicated effort to fight against the impunity through forensic science, during the last six years Brazil has developed an organized network of DNA laboratories and has finally implemented a national DNA database. In 2004 there were only five DNA crime labs and this number reached 17 in 2010. DNA technology has a great potential to change the high crime rates but the expansion of the program and the change of the legislation is a major challenge.

The creation of a federal DNA program in 2004 was the catalyst to spread the DNA technology in Brazil. This program permitted the reinforcement of the existing DNA labs, the creation of new labs, the education and training of analysts and the formation of a group of specialists who established the main guidelines of the program and the technical procedures of the analysis. The program included a high degree of cooperation between labs. Brazil has 27 states and analysts from states without a DNA lab could perform tests in the most experienced labs under supervision.

In 2009, Brazil signed the letter of agreement to use the FBI's Combined DNA Index System (CODIS) software and in the same year CODIS 6.0 was used to identify the victims of the Air France flight disaster. In 2010, the largest installation of CODIS software outside the United States was made, including in 15 state labs, one federal lab, plus the national databases of both CODIS 5.7.4 and CODIS 6.1.

A recent study showed that Brazil has the sixth highest rate of homicides across the globe (25.8 homicides in 100,000 inhabitants/year) and some studies show similar findings in sexual crimes (official statistics is about nine sexual crimes in 100,000 inhabitants/year but the actual number might be much higher due to the lack of reporting). The crime

solving rate is extremely low, with less than ten percent of the murderers being identified and convicted, and the absence of physical evidence is one of the main causes of this situation. It is clear that the expansion of the DNA database program would benefit Brazilians but the current understanding of the Constitution established in 1988, after a dictatorial military regime, is a major constraint. Suspects and convicted offenders have the right to refuse providing reference samples. The strategies to overcome this difficulty will be discussed.

Brazil, CODIS, DNA Database