

## AN UPDATE ON THE GITAD PROJECT IN LATIN AMERICA: TYPING THE 21<sup>st</sup> CENTURY

**Jose A. Lorente, MD, Ph.D.**

*Dept. of Legal Medicine, University of Granada, Granada, Spain*

## INTRODUCTION

GITAD was born to try to coordinate the efforts of all the DNA typing laboratories of Iberoamerica in order to facilitate the communication and sharing of technical knowledge and experiences, and also to help to improve the quality assurance and quality control programs. The fact in 1999 is that the situation in the different Iberoamerican countries is really different from one to each other.

The GITAD (*Grupo Iberoamericano de Trabajo para el Análisis del DNA; Iberoamerican Working Group on DNA Analysis*) was therefore founded in October 1998, during the Promega's IX Symposium of Human Identification, held in Orlando, Florida. This first meeting was attended by representatives from 11 different countries (Chile, Argentina, Uruguay, Brazil, Venezuela, Colombia, Costa Rica, El Salvador, México, Puerto Rico, and Spain).

A Second GITAD meeting was held in Belo Horizonte (Brazil), as part of the II Latin American Symposium on Human Identification; again, the help and support from Promega Corporation is highly appreciated and welcomed. In Belo Horizonte the AICEF (*Academia Iberoamericana de Criminalística y Estudios Forenses = Iberoamerican Academy of Crimnalistics and Forensic Studies*), was also founded with 10 different sections, where the GITAD is now the Forensic Genetic Section of AICEF.

As of October 1999, all the Iberoamerican countries have a representative at the GITAD, regardless the size of the country, the kind of genetic techniques in use or any other criteria. GITAD/AICEF members must initially be members of a Laboratory belonging to a public or Government institution, i.e., Ministry of Justice, State Police Departments, Federal Law Police, Attorney's Office, Institute of Legal Medicine.

## POINTS OF REFLECTION

Data from a survey including most of the countries in the area lead us to the conclusion that it is absolutely necessary for strong collaboration and cooperation among all Latin American countries.

For instance, most of the laboratories are small in size and personnel (less than 8 people), but in contrast, they have highly qualified personnel (Ph.D.'s, University degrees running the laboratory). This is an optimistic finding facing the near future, although it has always been limited by the lack of international contacts for these highly educated personnel.

It is also interesting to observe how most of the GITAD laboratories deal almost exclusively with criminal casework, and paternity analysis when required inside a judicial investigation. Solutions to this casework require "state of the art" procedures and the best QA/QC standards.

Also to be noted are the differences in techniques employed not only among the different countries, but also inside the same country; this fact makes data incompatible, creating a big problem, especially because investigative budgets are limited for DNA analysis.

## **DECISIONS FACING A NEW MILLENIUM**

Since this time, just one year ago, a number of decisions have been made trying to look forward to the 21<sup>st</sup> century.

**A set of 6 loci have been chosen (GITAD 6 core loci):** CSF1PO, TPOX, TH01, D7S820, D13S317 and D16S539. The reasons why these loci have been chosen are as follows. First, because they can be analyzed both using silver-staining or fluorescent-based techniques (we must consider that less than 20% of the labs in Latin America can use fluorescent methods); second, because they are well known and can be purchased from commercial companies to ensure compatibility and quality; third, because they show a relatively high PD and PE; finally, because they are CODIS-compatible. It must be noted that GITAD just recommends the use of these loci in order to build up databases that can be compatible among different countries, but it doesn't mean that GITAD only recommends these loci or that these are the best available STRs.

**Establish different working groups** (#1: Quality Assurance & Quality Control; #2: Forensic Statistics; #3: Evidence collection and preservation; #4: Comparative Legislation) that are now working to facilitate common or similar guidelines in all countries, despite specific requirements made because of national laws. The first draft of formal conclusions will be approved in Uruguay and will be immediately made available to interested parties and general public.

**Run a First QC analysis**, including 4 dried bloodstains to be typed using PCR-based techniques; results are now being received in the coordinating laboratory, and they are all promising, since they all match in up to the different 17 loci that have been used.

In the near future a Third GITAD/AICEF meeting will be held in Montevideo, Uruguay, and a number of major decisions will be made, as to increase the number of core loci for the Iberoamerican common database, establish the minimum requirements regarding QA/QC procedures in Forensic DNA laboratories, endorse a minimum of statistical calculations in final reports and include recommendations for legislators to ensure and facilitate international cooperation.

We are sure that the whole of Iberoamerica will have a prominent role in the next century, and we truly believe that all efforts in this field, as in many others, do really have have worth.

## **REFERENCES**

Lorente JA: The GITAD project: DNA typing in Latin America. Profiles in DNA 3, 1999: 8-9

## **ACKNOWLEDGMENTS**

To all the GITAD/AICEF members, supporting this young society and assuming a lot of extra work for the best of the Justice in their countries.

To Promega Corporation (Tom Mozer, Mary Lasecki & Carol Zabit) for its invaluable support.