

The GITAD Project: DNA Typing in Latin America

By Jose Antonio Lorente, MD, PhD

Department of Legal Medicine, University of Granada, Spain

jlorente@goliat.ugr.es

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BACKGROUND ON LATIN AMERICA

Latin America is one of the largest land extensions in the world and is composed of more than 20 countries, from Mexico in the north to the Argentinean Patagonia and Chilean Tierra del Fuego in the south. In fact, Latin America is more than a continent, and despite the geographical differences imposed by the enormous latitude changes, a common language and history tie together these countries and their people. There are at least 19 countries where Spanish is the primary language, and one country, Brazil, whose primary language is Portuguese. Because of the common Latin origin of both languages, Spanish-speaking people can understand and read most of Portuguese, and vice versa, facilitating communication between the countries and the understanding between the different people.

FORMATION OF GITAD

While working at Bruce Budowle's lab at the FBI Academy in Quantico, Virginia, in 1994, my colleague (and brother) Miguel Lorente and I had the opportunity to meet Hugo Jorquera. Jorquera is the head of the DNA laboratory at the Chilean Medical Legal Service, a national reference laboratory belonging to the Chilean Ministry of Justice. At that time we discussed a number of common problems regarding DNA typing in most, if not all, Latin American countries. While attending a meeting in Santiago, Chile, in November 1997, we decided to create GITAD, the "Grupo Iberoamericano de Trabajo en Análisis de DNA."

In Spain and Portugal we use the term "Iberoamérica" rather than "Latin America" since the prefix "Ibero" also includes Spain and Portugal, the two countries of the Iberian Peninsula of Europe. Thus, the term Iberoamérica means Latin America plus Spain and Portugal, and GITAD includes not only Latin American, but also Spanish and Portuguese laboratories and institutions.

FIRST CONFERENCE

In October 1998, we organized the first meeting of GITAD under the sponsorship of Promega Corporation. This meeting was held during the Ninth International Symposium of Human Identification in Lake Buena Vista, Florida. Representatives from eleven different countries (Chile, Argentina, Uruguay, Brazil, Venezuela, Colombia, Costa Rica, El Salvador, Mexico, Puerto Rico and Spain) attended this first meeting.

GITAD was founded to try to coordinate the efforts of the entire Iberoamerican DNA typing community, to facilitate communication and sharing of technical knowledge and experiences, and to help improve the quality assurance and quality control programs of the member countries. In 1999, the situation in the Iberoamerican countries is still markedly different from one country to another. For example, there are countries where DNA analysis is not performed at all and other countries with state-of-the-art equipment and trained personnel. In some countries universities and private laboratories perform genetic identification, while in other countries only governmental laboratories (e.g., law enforcement and Ministry of Justice) are employing DNA-based genetic identification methods. There are great variations in the methods and technologies employed, which result in duplicated effort, complicate sharing of results and experiences and impede collaboration.

OBJECTIVES

The initial objectives of GITAD can be summarized as follows:

- **To determine the present situation of laboratories interested in integrating GITAD.**

By determining the technical situation of the laboratories performing DNA analysis in Iberoamerica, GITAD will examine the main needs and problems in order to establish priorities for initiating a set of performance guidelines. We will ascertain what databases are already generated, in which countries they exist and what kind of population and sub-populations are included.

- **To create working groups.**

By forming workgroups that are coordinated like the Scientific Working Group on DNA Analysis Methods (SWGDM), a forum for sharing technical experiences may be created. Through these workgroups we hope to facilitate proper interpretation of results, a common style for reporting results and discussion of especially difficult or uncommon cases.

- **To standardize techniques.**

Standardization of different techniques used by the GITAD laboratories and suggestions of techniques and protocols that are more reliable and robust will provide standards for forensic and human identification laboratories. Of course, GITAD will not interfere with the freedom of each laboratory to choose a particular method since the conclusions of the working group are only guidelines or suggestions.

- **To implement a quality assurance/control (QA/QC) system.**

Implementation of a QA/QC system in all of the Iberoamerican countries will set minimum requirements that will be compulsory in the near future. However, the particular situation of each country must be considered before these regulations are established.

- **To facilitate cooperation for training laboratory personnel.**

Facilitating the cooperation among the GITAD labs in order to train personnel and adapt new methodologies and techniques will be important for continued improvements in DNA typing methodologies.

- **To teach lay professionals information about DNA typing.**

Collaboration to teach professionals in areas related to forensic DNA typing and others (e.g., judges, prosecutors, lawyers, students, police officers, medical examiners and anthropologists) will help to keep the public informed about this growing area. GITAD will help to organize conferences, seminars and other scientific or professional activities.

- **To coordinate technical and economic support.**

Coordinating efforts to secure technical and economic support from national and international public agencies or institutions, as well as private and commercial companies, is especially important to support less wealthy countries in Iberoamérica.

FUTURE GOALS

Facing the future, we have organized the second meeting of GITAD, which will be held June 8, 1999, in Belo Horizonte, Brazil, as part of the Second Latin American Symposium on Human Identification.

Initially, only one laboratory from each country and only official public laboratories (belonging to law enforcement agencies or to Ministries such as Justice or Public Health) are represented in GITAD due to organizational reasons and for effectiveness. However, in the near future, this society will be open to any expert or laboratory interested in DNA typing that wants to collaborate with GITAD to achieve high-quality forensic analysis for all Iberoamerican countries.

Soon, GITAD will become the Forensic Genetics Section of the Sociedad Iberoamericana de Ciencias Forenses (SICEF) or Iberoamerican Society of Forensic Sciences.

For more information on GITAD or to complete our survey of Latin American forensic laboratories, please see the web site located at <http://members.xoom.com/GITAD/index.htm> or e-mail to jlorrente@goliat.ugr.es or labsml@ctcreuna.cl.

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