

CONTRIBUTION OF THE HUMAN IDENTIFICATION BY DNA TEST IN THE BRAZILIAN FAMILIES RIGHTS

Cicarelli, R.M.B., Martins, J.A., Braganholi, D.F., de Almeida, C.F., Felix, J.H.P., Alvarenga, V.L.S.

UNESP - São Paulo State University, School of Pharmaceutical Sciences, NAC -Laboratory of Paternity, Araraquara, São Paulo, 14801-902 - Brazil

Paternity rights are guaranteed in the Universal Declaration of Human Rights; however, there is a high number of people with incomplete birth registration data in Brazil, mainly father's name. Thus, many projects have been carried out by the Family Court to recognize paternity with DNA analysis becoming a very important tool in forensic science. The laboratory of paternity started its activities in March 2001, performing by schedule either judicial or non-judicial investigations with prices based on the cost of the tests and the market price. A lower-cost agreement was established with the Public Defender Service of Araraquara, SP, since 2009, which has been helping individuals without sufficient funds to pay for legal aid. More recently, in October 2011, another agreement was signed between UNESP/Laboratory of Paternity and the Public Defender Service of the State of São Paulo (DPESP), which is the issue of this abstract. The current agreement proposed DNA tests for free to those individuals, who are classified as beneficiaries of free legal assistance in Araraquara region (Headquarters) and other courts of many counties within 100 kilometers around Araraquara city. The agreement establishes the maximum of 100 tests per month of live individuals and five exams of exhumed bodies. The laboratory is doing analyses from different biological materials such as blood, saliva, hair and bones using different techniques for the analysis of DNA including typing of 16-18 autosomal STRs (Short Tandem Repeat) markers and, when necessary, 12 Y-STRs, 10 X-STRs and mitochondrial DNA sequences. The methodology and reagents utilized in these evaluations meet the consensual commercially standards recommended for the human identification. Every year, the laboratory participates in the quality control programs coordinated by the *Grupo de Habla Española y Portuguesa* of the International Society for Forensic Genetics (GHEP-ISFG) and by the *Laboratorio de Genética Forense y Huellas Digitales del DNA*, GENES, Colombia. At the end of each month, a report of the services provided is sent to DPESP, which makes the payment. Since the beginning of the current agreement in December 2011 until May 2012, 68 examinations of living people involving typing of 197 samples were performed. The investigations included 57 complete *trio* examinations (mother, son and alleged father), five *duo* examinations (child and alleged father) and six cases of reconstruction, when the alleged father was dead. The results of 45 exams were non-exclusion of the biological relationship with a probability greater than 99.999% and of 23, the relationship was excluded. In conclusion, the UNESP/Laboratory of Paternity has a university outreach program with community services providing some resources to educate highly qualified professionals with a team including one PhD, two academic support and extension research fellows, one specialist student, one professional specialist and one full professor as a coordinator.

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