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NOTE

Genotype profiles for the Costa Rican population at 7 PCR-based loci

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Abstract: Complete electronic DNA profiles of 2006 randomly selected Costa Ricans, typed for 7 PCR-based loci, are presented. Such data may prove valuable for anthropological and forensic studies of the Costa Rican population. Rev. Biol. Trop. 52(3): 713-715. Epub 2004 Dic 15.

Key words: Forensic, electronic communication, DNA profiles, PCR-based loci, Costa Rica.

Palabras clave: Ciencias Forenses, datos electrónicos, ADN, PCR, Costa Rica.

The international standards recommended among others by the International Society for Forensic Genetics (ISFG), require the existence of population databases supporting the biostatistical calculations. This applied to paternity investigations ant analysis of biological remains of criminological interest in case of not finding an exclusion (Olaisen *et al*.1997, Gómez and Carracedo 2000). Thus, a detailed knowledge of the genetic structure of the Costa Rican population, is of great importance because only little reference information is available, especially taking in account its unique hybrid origin of this population (Morera *et al*. 2001 a, 2003).

One of the most relevant and visionary aims of the Costa Rican Judiciary Branch during the last decade was the implementation of DNA technology with forensic purposes. This process started in 1995. Consequently, the results of population studies on genetic markers for typing biological material were formally available in the local context since 1997 (Morales *et al*. 1997). Such analyses supported the first applications of this technology into the Costa Rican courtrooms (Morera and Jiménez-Arce 1998, Morales *et al*. 2004). Nevertheless, they were only recently published (Morales *et al*. 2001, Morera *et al*. 2001b).

For practical restrictions, traditional publications only expose summary data on population studies. However, electronic communication enables the dissemination of complete DNA profile data to the scientific community. Such data may prove valuable for forensic applications and population genetic studies (Budowle and Moretti 1999).

This report, in its electronic format provides genotype profile data for 2006 randomly selected Costa Rican samples which were typed for the loci HLA-DQA1, LDLR, GYPA, HBGG, D7S8, Gc, and D1S80 (crdnaloci.txt). The details about materials and methods are published elsewhere (Morales *et al*. 2001, Morera *et al*. 2001b, Morales *et al*. 2004).

These data may serve as a useful base for future characterization of highly polymorphic autosomal short tandem repeat (STR) loci (Budowle *et al*. 2001), Y-linked polymorphisms and SNPs (single nucleotide

polymorphisms) (Bosch *et al*. 2002, Jobling 2001) and mtDNA variability (Morera 2001/2002) for forensic purposes in Costa Rica, as done throughout the Americas (Budowle *et al*. 2001, Grattapaglia *et al*. 2001, Pagano *et al*. 2001, Cifuentes *et al*. 2002, Morales *et al*. 2002, Berardi *et al*. 2003, Chiurillo *et al*. 2003, Gonzalez-Andrade *et al*. 2003, Luna-Vazquez *et al*. 2003, Paredes *et al*. 2003, Perez *et al*. 2003) and Europe (Gusmao *et al*. 2000, Perez-Lezaun *et al*. 2000, Aler *et al*. 2001, Bosch *et al*. 2002).

RESUMEN

Se presenta una versión electrónica de los perfiles genéticos completos de 2006 individuos de Costa Rica seleccionados al azar, quienes fueron caracterizados para loci 6 basados en PCR. Tales datos podrían ser valiosos para estudios antropológicos y forenses de la población costarricense.

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