



# Allele frequencies for 12 autosomal short tandem repeat loci in two Bolivian populations

L. Cifuentes<sup>1</sup>, H. Jorquera<sup>2</sup>, M. Acuña<sup>1</sup>, J. Ordóñez<sup>2</sup> and A.L. Sierra<sup>4</sup>

<sup>1</sup>Programa de Genética Humana, ICBM, Facultad de Medicina, Universidad de Chile, Santiago, Chile

<sup>2</sup>Genética y Tecnología Ltda., Santiago, Chile

<sup>3</sup>Laboratorio Gen y Vida, La Paz, Bolivia

<sup>4</sup>Laboratorio de Análisis Clínico Dr. Zuna Ltda., Santa Cruz, Bolivia

Corresponding author: L. Cifuentes

E-mail: lcifuent@med.uchile.cl

Genet. Mol. Res. 7 (1): 271-275 (2008)

Received December 20, 2007

Accepted January 27, 2008

Published March 25, 2008

**ABSTRACT.** Two hundred and sixty unrelated subjects who asked for paternity testing at two Bolivian Laboratories in La Paz and Santa Cruz were studied. The loci D3S1358, vWA, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317, D7S820, TH01, TPOX, and CSF1PO were typed from blood samples, amplifying DNA by polymerase chain reactions and electrophoresis. Allele frequencies were estimated by simple counting and the unbiased heterozygosity was calculated. Hardy-Weinberg equilibrium was studied and gene frequencies were compared between the two samples. All loci conformed to the Hardy-Weinberg law and allele frequencies were similar in samples from the two cities. The Bolivian gene frequencies estimated were significantly different from those described for Chile and the United States Hispanic-Americans for most of the loci.

**Key words:** DNA typing; Population genetics; Short tandem repeat; Allele frequencies; Forensic science; Bolivian population