



**VI CONGRESO MUNDIAL DE ESTUDIOS
SOBRE MOMIAS**

Del 20 al 24 de febrero de 2007 en Teguiise (Lanzarote . Islás Canarias . Espána)

PROGRAMA Y RESÚMENES

PROGRAM AND ABSTRACTS

EDITADO POR:

Pablo Atoche Péna

M^a Angeles Raḿrez Rodŕguez

TEGUISE
2007



**VI WORLD CONGRESS ON
MUMMY STUDIES**

February 20–24, 2007 in Teguiise (Lanzarote, Canary Islands, Spain)

**Molecular Paleoparasitological
Diagnosis of *Ascaris
lumbricoides* in coprolites:
implications in its
Paleodistribution**

**D. Leles¹
Adauto Araújo¹
Luiz F. Ferreira¹
Ana C.P. Vicente²
Alena Mayo Iñiguez²**

¹ Escola Nacional de Saúde Pública Sérgio Arouca, Laboratório de Paleoparasitologia (ENSP-FIOCRUZ), Rio de Janeiro. Brasil.

² Instituto Oswaldo Cruz, Laboratório de Genética Molecular de Microorganismos (IOC-FIOCRUZ), Rio de Janeiro. Brasil.

Keywords: *Ascaris lumbricoides*; Molecular Diagnosis; Paleoparasitologia; ancient DNA; Paleodistribution.

Palabras clave: *Ascaris lumbricoides*; Diagnóstico Molecular; Paleoparasitología; ADN antiguo; Paleodistribución.

Ascaris lumbricoides is highly prevalent in archaeological sites from the Old World. However, is rare in pre-Columbian South America. The purpose of this study is to standardize a molecular diagnosis of *A. lumbricoides* straightly from coprolites. Positive and negative coprolites samples for *A. lumbricoides* by microscope optic analysis were selected. The samples were rehydrated and submitted to physical and chemical treatment: Phenol-chloroform and Kit Qlamp Mini Stool (Quiagem). Ancient DNA (aDNA) was submitted to PCR for human mitochondrial DNA (cox 2) and for *Ascaris* mitochondrial and nuclear DNA regions (cit b and ITS). Several samples were PCR positive to human DNA. Preliminary results shown *Ascaris* cit b PCR positive results in two sediment samples from Raversijde site, Belgium (XIV century) and Lübeck, Germany (450 BP). This work reveals an *Ascaris* molecular detection straightly from coprolites which will be extremely important in the study of the paleodistribution of the *ascariasis*.