

Implementation of computerized process and a management system at the Leishmania collection of the Oswaldo Cruz Institute [Coleção de Leishmania do Instituto Oswaldo Cruz] – CLIOC

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Abstract:

The *Leishmania* Collection at the Oswaldo Cruz Institute (CLIOC) was created in 1980 with the support of the Oswaldo Cruz Institute, the Oswaldo Cruz Foundation and the World Health Organization. CLIOC is registered with the World Federation for Culture Collections (WFCC – WDCM 731), and is part of the demonstration project for a Global Biological Resource Centre Network. CLIOC is in constant activity, mainly giving support to the Brazilian Ministry of Health and to the scientific community. CLIOC received more than 3,000 samples for deposit and/or characterization and today has more than 1,000 strains available, representing two sections, three subgenera and about 30 species. These strains come from many localities and different hosts, most from South America. A constant concern of this collection has been with epidemiological data associated with the strains collected. All deposited strains are submitted to biochemical identification. Biological and molecular characterizations have also been conducted through research projects, lead by CLIOC or by other research groups. CLIOC is involved with public health, epidemiology, and disease ecology communities, understanding that careful documentation is critical to disease research. Here we describe the computerization process adopted at CLIOC by using a management system - Sicol. CLIOC is now fully computerized through this system, and is able to register a wealth of information about the samples collected, including biological (e.g. growth curve, in vitro sensibility to antimonial, infectivity, virulence), biochemical (e.g. isoenzymatic pattern, proteomic), molecular (e.g. DNA sequences, gene expression), clinical and ecological traits. In addition, services through online forms and the online catalog are available through its web site (<http://clioc.ioc.fiocruz.br>). Stock control and strain distribution management are also covered by Sicol, among other features. CLIOC is also partially georeferenced and connected to the *speciesLink* network, aiming to help predictive studies on *Leishmania* species and genotype dispersion.

Key words: Information system, Leishmania collection, Management system