

Organs infected with *Trypanosoma cruzi* and DTU identification in the naturally infected rodent *Octodon degus*

Por: [Rojo, G](#) (Rojo, Gemma)^[1,2]; [Pelissier, F](#) (Pelissier, Francisca)^[2,3]; [Sandoval-Rodriguez, A](#) (Sandoval-Rodriguez, Alejandra)^[2,3]; [Bacigalupo, A](#) (Bacigalupo, Antonella)^[3,4]; [Garcia, V](#) (Garcia, Vanessa)^[2,3]; [Pinto, R](#) (Pinto, Raquel)^[2,3]; [Ortiz, S](#) (Ortiz, Sylvia)^[2]; [Botto-Mahan, C](#) (Botto-Mahan, Carezza)^[5]; [Cattan, PE](#) (Cattan, Pedro E.)^[3]; [Solari, A](#) (Solari, Aldo)^[2]

EXPERIMENTAL PARASITOLOGY

Volumen: 215

Número de artículo: 107931

DOI: 10.1016/j.exppara.2020.107931

Fecha de publicación: AUG 2020

Tipo de documento: Article

[Ver impacto de la revista](#)

Abstract

Chagas disease is a public health problem in America. Its parasite, *Trypanosoma cruzi*, presents different discrete typing units (DTUs), colonizes organs of mammalian hosts in chronic infections, and presents tropism for particular organs in experimental infections. We evaluated *T. cruzi* tropism towards organs on the naturally infected rodent *Octodon degus*, identifying the parasites' DTUs, by means of conventional PCR and hybridization. Almost all the analyzed organs presented *T. cruzi*. More than 42% of the tested oesophagus, skin, skeletal muscle, brain and intestine showed *T. cruzi* DNA. Other nine types of organs were infected in over 15%. These results suggest that there is some tropism by *T. cruzi* in chronically infected *O. degus*. DTU TcV was present in 92.5% of infected organs with identified DTUs; this DTU is frequently reported in human infections in the Southern Cone of South America. Few organs showed mixed DTU infections. This is one of the few reports on the outcome of chronic natural *T. cruzi*-infection in wild mammal hosts exposed to naturally infected vectors.

Palabras clave

Palabras clave de autor: [Wild host](#); [Tissue infection](#); [Chagas disease](#); [Discrete typing units](#)

KeyWords Plus: [DISCRETE TYPING UNITS](#); [CHAGAS-DISEASE](#); [MOLECULAR](#)

[EPIDEMIOLOGY](#); [TISSUE TROPISM](#); [ENDEMIC](#)

[AREA](#); [WILD](#); [GENOTYPES](#); [PATHOLOGY](#); [MODEL](#); [REACTIVATION](#)

Información del autor

Dirección para petición de copias:

Universidad de Chile Univ Chile, Fac Med, ICBM, Programa Biol Celular & Mol, Santiago 8380453, Chile.

Dirección correspondiente: Solari, A (corresponding author)

- + Univ Chile, Fac Med, ICBM, Programa Biol Celular & Mol, Santiago 8380453, Chile.

Direcciones:

- + [1] Univ OHiggins, Inst Ciencias Agroalimentarias Anim & Ambientales, Rancagua, Chile
- + [2] Univ Chile, Fac Med, ICBM, Programa Biol Celular & Mol, Santiago 8380453, Chile
- + [3] Univ Chile, Fac Ciencias Vet & Pecuarias, Dept Ciencias Biol Anim, Santiago, Chile
- + [4] Univ Glasgow, Inst Biodivers Anim Hlth & Comparat Med, Glasgow, Lanark, Scotland
- + [5] Univ Chile, Fac Ciencias, Dept Ciencias Ecol, Santiago, Chile

Direcciones de correo

electrónico:gemma.rojo@uoh.cl; francisca.pelissier@gmail.com; alesandovalrodriguez@gmail.com; abacigalupo@uchile.cl; vgarcia@hotmail.cl; raquel.pinto.sierralta@gmail.com; sortiz@med.uchile.cl; cbotto@uchile.cl; pcattan@uchile.cl; asolari@med.uchile.cl

Financiación

Entidad financiadora Mostrar más información	Número de concesión
ANID-FONDECYT	3180707 1190392 1180940 1170367
CONICYT-FONDECYT-BECA	21120685
Comision Nacional de Investigacion Cientifica y Tecnologica (CONICYT) CONICYT FONDECYT	1120122
ANID-Programa Becas-Doctorado Becas Chile	72200391

[Ver texto de financiación](#)

Editorial

ACADEMIC PRESS INC ELSEVIER SCIENCE, 525 B ST, STE 1900, SAN DIEGO, CA 92101-4495
USA

Información de la revista

- Impact Factor: [Journal Citation Reports](#)

Categorías / Clasificación

Áreas de investigación: Parasitology

Categorías de Web of Science: Parasitology

Información del documento

Idioma: English

Número de acceso: WOS:000551499700007

ID de PubMed: 32464222

ISSN: 0014-4894

eISSN: 1090-2449