Scientific/Technical offer for licensing

Ref. OTRI

201121R-García-España, E

Knowledge area

Pharmacology
Veterinary
Inorganic Chemistry

Collaboration

Technology available for licensing
Other collaborations may be considered

Intellectual Property Rights

Patent rights

Avda. Blasco Ibáñez, 13
46010 Valencia (Spain)
Tel. +34 96 3983943
marta.garces@uv.es
www.uv.es/otri

Antiparasitic compounds

Inventors: Enrique García-España Monsonís, Mª Paz Clares García, Salvador Blasco Llopis, Conxa Soriano Soto, Jorge González García, Begoña Verdejo Viu, Mario Inclán Nafría (Institute for Molecular Science, University of Valencia), Manuel Sánchez Moreno, Clotilde Marín Sánchez and Francisco Arévalo Olmo (Departament of Parasitology, University of Granada).

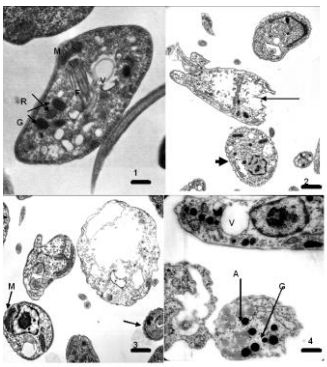
Background: Parasites are the causal agents of a number of serious human diseases, such as Chagas' disease (caused by *Trypanosoma cruzi*) and leishmaniasis (caused by *Leishmania spp.*) which infect millions of people each year. Due to the impact of these parasites on public health and the inadequacy of current treatments there is an urgent requirement for more effective drugs, since those in use are highly toxic and are ineffective in the chronic phase of the disease. Moreover, the problem is compounded by rise in drug resistance, especially for leishmaniasis.

The invention: Researchers from University of Valencia and University of Granada have demonstrated the use of scorpiand-type azamacrocycle compounds for the treatment of parasitic diseases, specifically for Chagas' disease and leishmaniasis, *in vitro* and as well *in vivo*, in mice. The synthesised compounds are structurally different from drugs in use, are ten times less toxic and show activity against both, the acute and chronic phases of the infection caused by *Trypanosoma cruzi* and *Leishmania spp*.

Applications: The main application of the technology is i**n the pharmaceutical or veterinary area**, as pharmaceutical composition for the treatment of human or animal parasitic diseases.

Advantages: The most remarkable advantages provided by this technology are:

- Decrease in price and in the development of side effects due to lower IC_{50} value of the compounds than drugs in use.
- Lower toxicity of the compounds than existing drugs for the treatment of Chagas' disease and leishmaniasis.
- Antiparasitic activity in the chronic phase of the disease.



Ultrastructural alterations images from *Trypanosoma cruzi* epimastigotes treated with different compounds by transmission electron microscope (TEM)

Información adicional