Technology Offer CSIC/AH/050

Compounds for the treatment of canine Leishmaniosis

New family of compounds with demonstrated *in vitro* efficacy against intracellular parasites responsible for leishmaniasis and American trypanosomiasis or Chagas disease. Pharmacokinetic and toxicity studies have been conducted in rats, as well as preliminary efficacy studies in a murine model.

Intellectual Property

Patent applications filed in EP and US

Stage of development

In vivo proof of concept in animal model

Intended Collaboration

Licensing and/or co-development

Contact

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Market need

Current treatments for veterinary leishmaniasis can improve clinical signs and prolong remission, but they do not eliminate the parasite, have significant side effects, require long-term administration, and do not prevent relapses or transmission. New veterinary treatments for leishmaniasis should improve upon current therapies by offering safer and more effective options that completely eliminate the parasite and prevent relapses. Additionally, specific veterinary drugs are needed to avoid cross-resistance with human treatments, and affordable solutions are essential to ensure accessibility in endemic regions.

Proposed solution

The compounds have shown *in vitro* efficacy against intracellular parasites responsible for leishmaniasis (Leishmania donovani, L. infantum, L. major) and American trypanosomiasis or Chagas disease (Trypanosoma cruzi). Pharmacokinetic and toxicity studies have been conducted in rats with lead compounds. Additionally, promising *in vivo* efficacy data have been obtained in a mouse model infected with Leishmania infantum, using two formulations of the lead compound administered orally. In particular, their main application would be for the treatment of canine leishmaniasis, as there is currently no treatment that is 100% effective against the disease in dogs.

Competitive advantages

- The developed compounds have demonstrated 100% *in vitro* efficacy against parasites causing leishmaniasis. The therapeutic index (*in vitro*) against these parasites is high (>76 against Leishmania, >69 against T. cruzi).
- Promising data have been obtained from *in vivo* efficacy studies in a murine model of visceral leishmaniasis, following oral administration of the lead compound.