



Nanostructured system for the treatment of paracoccidioidomycosis



> **Description** This new technology consists of a nanostructured lipid carrier that incorporates 2-hydroxychalcone, to be used as an antifungal drug, preferably for the treatment of paracoccidioidomycosis (PCM).

> **Problem** PCM is a chronic infectious tropical disease in Latin America, whose importance stems from its prevalence, the severity of some of its forms, and its mortality rates. Human infection occurs mainly through the respiratory system by inhalation of the infectious form of the fungus *Paracoccidioides brasiliensis*. The treatment for PCM includes synthetic antibiotics and chemotherapeutic drugs, and the antifungal agent most widely used is amphotericin B. However, this drug is toxic to the kidneys and can also cause anemia by acting directly on the bone marrow. Therefore, this new technology involves a new approach to the treatment of PCM, which does not cause the problems brought about by the current treatments.

> **Benefits** This new technology consists of an excellent antifungal substance, non-toxic and highly selective, which is 30 times safer than the drugs currently used for the treatment of PCM.