

**TITLE:** ANTIPARASITE ACTIVITY, AND ANTITUMOR OF FUNGI ENDOPHYTIC FUNGI OBTAINED FROM THE BRAZILIAN FORESTS OF THE MANGROVE

**AUTHORS:** MOREIRA, C. C.<sup>1</sup>; LUNA, G. F.<sup>1</sup>; SOARES, B. M.<sup>2</sup>; SORIANO, B.<sup>1</sup>; CAVICCHIOLI, R.<sup>1</sup>; MONTENEGRO, R. C.<sup>3</sup>; LACAVA, P. T.<sup>1</sup>; ANIBAL, F.F.<sup>1</sup>

**INSTITUTION:** <sup>1</sup>UNIVERSIDADE FEDERAL DE SÃO CARLOS (RODOVIA WASHINGTON LUÍS, S/N, CEP 13565-905, SÃO CARLOS-SP, BRAZIL)

<sup>2</sup>UNIVERSIDADE FEDERAL DO PARÁ (RUA AUGUSTO CORRÊA, 1, GUAMÁ, CEP 66075-110, BELÉM-PA, BRAZIL)

<sup>3</sup>UNIVERSIDADE FEDERAL DO CEARÁ (RUA CORONEL NUNES DE MELO, DE 471/472 A 1999/2000, RODOLFO TEÓFILO, CEP 60430-275, FORTALEZA-CE, BRAZIL)

**ABSTRACT:**

The endophytic microorganisms are those that colonize the interior of plant tissues without causing injury, the pathogenic to the host. Currently, special attention has been paid to the significant number of natural products synthesized by fungi endophytic fungi with activities leishmanicidal, and antitumor. Leishmaniasis is among the Neglected Tropical Diseases which constitute a serious public health problem in many parts of the world; including Brazil. Visceral Leishmaniasis, caused by *Leishmania infantum chagasi*, if untreated is a fatal disease. As well as leishmaniasis, cancer generates a high rate of morbidity and mortality, and has become a major issue in public health. This disease is characterized by the growth disorganized proliferation of anormal cells and invasion of normal tissue, and reach various organs occurs when there are metastasis. The main treatments against cancer have a toxicity non-specific, acting on normal cells, presenting several side effects, besides not being effective against many types of cancer. Given the importance of these diseases it is necessary to search for new sources of leishmanicidal, and chemotherapy by reducing treatment failures and increasing the effectiveness. Therefore, in the present study, it was researched the potential leishmaniasis and anti-tumor of 8 crude extracts (CEs) produced by endophytic fungi belonging to the genera *Diaporthe* and *Phomopsis* isolated from plants of the mangrove in Brazil. For the tests leishmanicidal, were used promastigotes of *L.chagasi*, and the cell viability was assessed using Alamar Blue®. Already in the essay antitumor, were tested on three strains of tumor, since they are AGP-01 (ascites gastric), MCF7 (human breast) and SKMEL-19 (melanoma human). The cell viability was evaluated using the method of MTT. For the tests leishmanicidas, 4 CEs showed an EC 50 of 1 mg in the 24 and 48h and for the antitumor, 8 EBs showed mortality above 80%. These results suggest potential for the discovery of new bioactive molecules with broad spectrum of activity in the area of therapeutic medicine.

**Keywords:** biomolecules, bioprospecting, cancer, leishmaniasis

**Development Agency:** CAPES