Researchers at the University of South Florida have developed therapeutic compositions containing isolated chemical compounds from the Antarctic sponge, *Dendrilla membranosa*, that display potent activity against the parasite *Leishmania donovani* which causes the disease leishmaniasis.

Leishmaniasis is a neglected tropical disease (NTD). This diverse group of communicable diseases prevails in tropical and subtropical conditions and affect many people in developing countries. This particular disease affects nearly one million people per year, and can be fatal if left untreated. Current treatment options are limited, and have unwanted side effects. An additional challenge is the parasite’s ability to become drug resistant. What is needed is a powerful therapeutic drug to treat Leishmania that overcomes resistance and has decreased side-effects.

The marine sponge, *Dendrilla membranosa*, produces a series of compounds with varying degrees of biological activity against the parasite *Leishmania donovani*. USF researchers have developed novel therapeutic compositions from these isolated anti-Leishmania agents. These compounds lack significant toxicity when tested against cell cultures, suggesting potential for decreased side-effects on healthy tissues. The current challenge of drug resistant parasite strains and the adverse side effects are overcome with these novel compounds, which may be a great clinical benefit for the treatment of leishmaniasis.

**ADVANTAGES:**
- Potent activity against Leishmaniasis parasite
- Low toxicity to healthy cells
- Parasite shows no resistance

**Targets the Disease Causing Parasite**
*Leishmania Donovani*

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*The Antarctic Sponge, Dendrilla Membranosa, from which the Parasite Killing Compounds are Isolated*