Non-cost advantages for cost escalation

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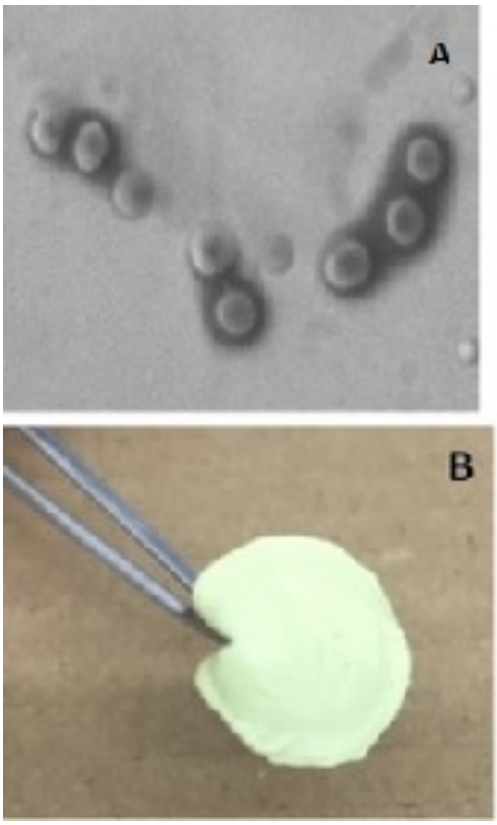
Technology description

This article

Wounds are considered a public health problem. In Brazil alone, an estimated $1 billion is spent annually on chronic trauma, which can lead to paralysis, anxiety, depression and, in many cases, amputations. Thus, current technologies make it possible to develop new therapies that can be used as a means of mitigating the damage caused by poor or non-healing skin.

Lipid nanocarrier has the combination of antioxidants, which can localize the curative effect of the prescription, control the oxidation potential of the wound, avoid its bacterial contamination, and can be comparable to the performance of two or more conventional combination products. Nano-carriers can be embedded in sprays, gels and expansion membranes because of their liquid dispersion and wide applications. In addition, the developed system is composed of low-cost materials, but has interesting skin repair properties, and is obtained through a simple production process, can be accessed by a large number of patients, and is used by the public health system.



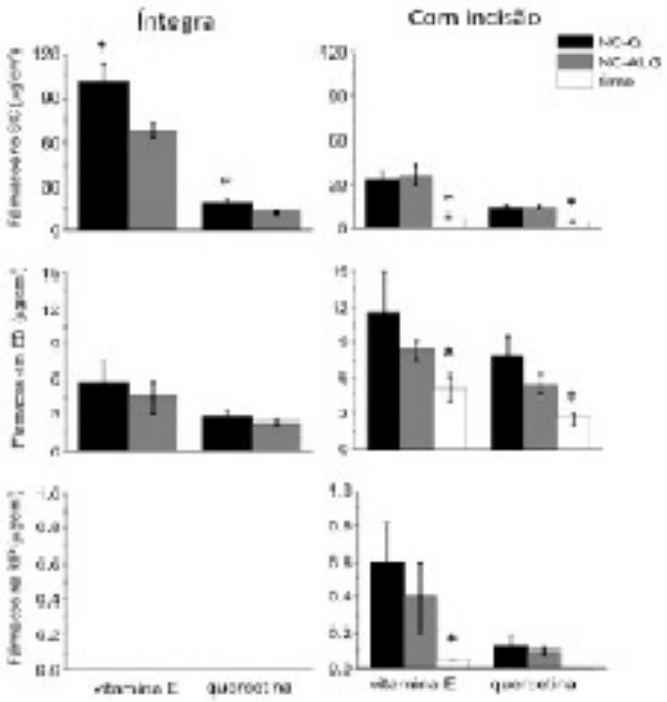
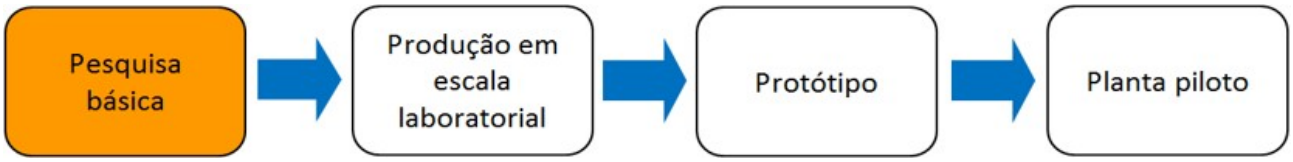


Figure-1. Nano-carrier (A) and thin film containing active nano-carrier (B); Skin penetration of antioxidants was compared when free nanoparticles (modified with alginate, NC-ALG, or chitosan, NC-Q) were embedded or inserted into intact or damaged skin membranes through a straight incision.

Development Plan



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Application area

The technology serves as a complementary tool in the pharmaceutical and chemical industry in the field of health and care (human and animal) and is designed to treat a neglected public health problem, such as a wound.

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