



# Nanocapsules containing curcumin for topical application



> **Description** This invention consists of a mucoadhesive drug delivery system for the oral administration of curcumin, which has shown a promising potential to inhibit one of the main factors (nuclear factor kappa beta) that contribute to the development of oral cancer.

> **Problem** Oral cancer is the sixth most common type of cancer in the world, and about 300,000 new cases are recorded every year. The physicochemical and pharmacokinetic characteristics of drugs currently used in the treatment of this disease present several problems that diminish the efficacy of these treatments. Moreover, these treatments are expensive.

> **Benefits** The proposed technology consists of an effective method for the administration of curcumin through a mucoadhesive delivery system, which prolongs the drug-target residence time, thus increasing the effectiveness of the treatment. Moreover, this medicament is composed of a naturally derived molecule, which has a promising potential to inhibit the nuclear factor kappa beta, the main contributing factor for the development of oral cancer.