

## Evaluation of the Therapeutic Activity of Novel Peptides Based on COMP Epitopes for Oral Submucosal Fibrosis

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**SUMMARY.** Oral submucosal fibrosis (OSF) is a chronic, insidious and malignant disease of oral mucosa. WHO has classified OSF as a premalignant state, with a canceration rate of up to 13%. Numerous studies have shown that the increase of profibrotic cytokines and the decrease or lack of anti-fibrotic cytokines may lead to the occurrence and development of oral submucous fibrosis. For the treatment of OSF, the novel peptides targeting COMP protein were designed and synthesized in this research. The biological activity of the novel peptides were evaluated with ELISA and real time RT-PCR assay.

**RESUMEN.** La fibrosis submucosa oral (OSF) es una enfermedad crónica, insidiosa y maligna de la mucosa oral. La OMS ha clasificado la OSF como un estado premaligno, con una tasa de cáncer de hasta el 13%. Numerosos estudios han demostrado que el aumento de citoquinas profibróticas y la disminución o falta de citoquinas antifibróticas pueden conducir a la aparición y desarrollo de fibrosis submucosa oral. Para el tratamiento de OSF, los nuevos péptidos dirigidos a la proteína COMP se diseñaron y sintetizaron en esta investigación. La actividad biológica de los nuevos péptidos se evaluó con ELISA y ensayo de RT-PCR en tiempo real.

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**KEY WORDS:** ELISA, OSF, peptides.

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