



THE STIMULATION OF MATRIX METALLOPROTEINASES (MMP) BY LATANOPROST IN TENON FIBROBLASTS.

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Purpose: To investigate the presence and the possible role of MMPs in Tenon capsule fibroblasts following Latanoprost exposure. The results should be of significance for connective tissue remodeling and of potential relevance for the scarring of filtering blebs.

Design: Human and animal tissue culture study

Materials: Human and rabbit Tenon's fibroblasts

Testing/Main Outcome Measure: Synthesis of MMPs measured by immunohistochemistry

Methods: Human Tenon fibroblasts were examined for the presence of MMPs and TIMPs via RNA and protein analysis. Conjunctival specimens of rabbits treated with Latanoprost were examined by immunohistochemistry.

Results: An up-regulation of MMP-3 and TIMP-2 occurs in fibroblasts following exposure to Latanoprost.

Conclusion: Tenon fibroblasts synthesise MMPs and TIMPs for remodeling extracellular matrix. Latanoprost stimulates expression of MMP and TIMP. These effects might be significant in the context of conjunctival wound healing following glaucoma surgery.

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