Ex-vivo determination of antifungal activity of a new prescription non-steroidal facial cream against Malassezia furfur in human skin explants

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METHODS
Human organotypic skin cultures (hOSCs) were obtained from abdominal skin removed during cosmetic surgery. The explants were altered by partial elimination of stratum corneum to facilitate colonization and stabilization of the MF (Figure 1).

RESULTS
In the altered skin explants, inoculation with MF led to successful colonization as indicated by the significant increase in MF CFUs compared to baseline: a 2-fold increase at 24 hours. The topical application of NSFC significantly reduced (p<0.05) the number of MF CFUs by 90% compared to the untreated control group. The sham control treated with neutral cream did not lead to a significant reduction of the MF population (15% decrease in CFUs) (Figure 3).

CONCLUSIONS
In this ex-vivo model, the topical application of a new NSFC significantly reduced the MF CFU count. These findings demonstrate the antifungal properties of this NSFC, specifically for MF, a key contributing fungus in Seborheic Dermatitis.

REFERENCES: