IN VITRO EVALUATION OF COSMETIC FORMULATIONS AND MOISTURIZERS FOR ANTI-AGING USING EPIDERMFT™

Objectives
To evaluate the anti-aging efficacy of topically applied cosmetic ingredients and formulations by measuring the expression of ECM components in the EpiDermFT in vitro human skin model.

Results
EpiDermFT tissues treated with Formulation A showed significant increases in Collagen 1A1, collagen 3A1 and Elastin gene expression. Tissues treated with Formulation B showed significant increases in COL3A1 expression (Figure 2).

Methods
- EpiDermFT tissues (Figure 1) were produced in the MatTek Corporation GMP tissue production facility.
- 25μl of each formulation was applied topically for 24 hrs.
- After treatment, EpiDermFT tissues were processed for total RNA isolation.
- Total RNA was utilized for gene expression analysis by quantitative PCR.

Conclusion
Evaluation of ECM components by quantitative PCR in the EpiDermFT in vitro human skin model can be used in efficacy and claims substantiation studies.