

# Human Skin Cell Explants Exposed to UV Radiation: The Benefits of Using AC-11® in an Oral Model

Summary of Study August 2008  
Laboratoire BIO-EC, Longjumeau, France

The purpose of this study conducted by a leading cosmetics/cosmeceuticals laboratory in France was to determine if AC-11®, administered orally, produces benefits to skin health similar to those observed in previous topical research models. Results were measured pre and post treatment with AC-11®, after exposure to varying levels of UV radiation.

The BIO-EC study showed significant improvements to skin health at a minimum AC-11® dosage level of 250mgs.<sup>1</sup>

## Results: Oral Use Skin Benefits

(1) Skin morphology: It was established that AC-11® increased the total number of cells surviving after exposure to UV radiation.

(2) Decrease in TT-dimer formation: AC-11®-treated samples showed a significant decrease in TT-dimer formation (early stage skin cancer or Actinic Keratosis). This data is consistent with Optigenex topical research findings.

(3) Epidermal layer thickness: AC-11® slightly increased epidermal thickness.

(4) Enhanced DNA repair: Based upon Ki-67 immuno-staining, enhanced DNA repair was measured in samples treated with AC-11®. Ki-67 also demonstrated increased cellular activity and DNA repair.

(5) Increase in collagen III production: AC-11® significantly increased collagen III over-expression. Collagen III is associated with healing as it relates to increased activity in granulation tissue. This activity is important as a healthy response to skin damage resulting from over exposure to the sun.

Interested parties may contact Optigenex in writing to request further information regarding the BIO-EC study.

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<sup>1</sup> Optigenex recommends minimum oral dosage levels of 250 to 700 mg. in accordance with efficacy standards established and validated through previous studies.