

Further Rationale for Using AC-11® to Decrease Sun Induced Skin Damage (A Bio-EC Studies Summary)

The primary purpose of the Bio-EC study was to determine if AC-11® administered orally, produced similar benefits to skin health as observed in previous topical research models. The benefits were measured pre and post treatment with AC-11®, after exposure to varying levels of UV irradiation. It should be noted, that Optigenex recommended minimum oral dose levels in accordance with efficacy standards established through previous studies. That is, dose dependent benefits in the range of 350mgs to 750 mgs. In any event, the BIO-EC study did show significant benefits to the skin health by the oral use of AC-11® at a dosage level of 250mgs. Future studies will look at higher dosages of AC-11® used in the similar models to discern the optimum levels required to obtain maximum benefits.

Oral Use -Skin Benefits in Summary

- 1). When looking at the skin's morphology it is established that AC-11® increases the total number of cells surviving after exposure to UV irradiation. (Pre and post treatment with AC-11®)
- 2). AC-11® treatment shows a significant decrease in TT-dimmer formation (Early stage skin cancer or Actinic Keratosis.) This data is consistent with our topical research findings.
- 3). AC-11® slightly increases Epidermal thickness.
- 4). Based upon Ki-67 immunostaining, enhanced DNA Repair was measured. Ki-67 shows increased cellular activity which demonstrates that enhanced DNA repair is occurring.
- 5). AC-11® significantly increases Collagen III over expression. A slight increase of Collagen I was observed. Collagen III is associated with healing as it relates to increased activity in granulation tissue. This activity is very important as a healthy response to sun induced or other skin damage.