## A New, Holistic Approach for Eyelash Length, Thickness and Volume Enhancement

Authors: Nada André, Emmanuel Doridot, Olivier Peschard, Pascaline Criton, Olga Gracioso, Philippe Mondon, Ph.D., Sederma SAS, Cedex, France

## **Abstract**

Long and luscious eyelashes are considered a sign of beauty and femininity in many cultures. But how can we offer long term solutions to women and not let them only rely on makeup that provides them with glamorous eyes for a short period of time or through off-label use of medication intended for ocular problems that can have side effects?

It clearly seems, according to current knowledge on the morphogenesis of the hair, that the mechanism of its formation is complex and multifactorial. Promoting the reinforcement of the follicle and the progression in the hair cycle is thus a challenge.

This article will discuss how an innovative active ingredient based on a vitaminated tripeptide seems ideal for improving growth, volume and the preservation of lashes, without prostaglandins and medical approval. This new, holistic approach will be reviewed in detail as well as the results of the diverse *in vitro* and clinical studies carried out to illustrate its efficacy.

## Introduction

The lashes surround the eyes and clearly have a protective function in mammals by helping the mobile eyelids to which they are attached. There are about 150-200 lashes on the upper eyelid and half as many on the lower eyelid. They help protect the eye from insects and dust <sup>(1,2)</sup>.

In addition to protecting the eyes, the lashes also play a fundamental role in feminine attraction. Eyes can be so hypnotic that people have been known to fall in love after just one look. In every civilisation, women and sometimes even men, have sought to enhance their eyes (3).

"The Art of Beauty" written by Ovid in the 1st century BC, gave early make-up advice. Today, professionals know how to work with contrast around the eyes to magnify them and create an impression of depth. To do this, they use a wide range

of dedicated cosmetic products, so that regardless of eye and skin colour, there is always a way of enhancing the eyes and intensifying a personality. In addition to eye shadow, one of the keys to making the eyes stand out is by highlighting the lashes with mascara. Mascara helps eyes look bigger and more expressive by colouring the eyelashes. The eyelashes, which are thinner at their tips than at their implantation site, are not easily seen against the coloured background of skin. Thanks to the darkening provided by mascara, the ends of the eyelashes become more pronounced and the pigments deposited onto the eyelashes make them look thicker.

Mascara originally came from antimony, a black metalloid with bluish highlights that, when crushed, becomes a powder. In 1915, in an effort to help his sister, T.L. Williams launched a mascara made of coal dust mixed with vaseline. Williams sold his product by mail and created a company named after his sister. Modern mascaras are more complex. There are two main kinds: waterproof mascaras and non-water resistant mascaras. Today, mascara provides contrast for, lengthens and thickens lashes. It helps increase their apparent volume and improve their curl. Some mascaras also contain synthetic fibres, such as nylon, which when applied with the texture of the mascara, lengthen eyelashes.

Sublime eyes can also be achieved through eyelash extensions, or even eyelash transplants <sup>(4)</sup>. In the USA, people can lengthen and strengthen their lashes through off-label use of medications intended for ocular problems but these products can have side effects. Obtaining this effect by using a mascara seems like a dream that has finally come true. Our company has developed a safe ingredient, based on vitaminated tripeptide, that provides these results.

## **Eyelash Complex Growth Mechanisms**

The elegant eyelash is, anatomically-speaking, a hair similar to other body hair; however, it has a few differences, such as the fact that it is larger at its base than other body hair. The

