

## Results of a Clinical Study on D-LAB's Keratin

Effectiveness of a keratin supplementation on the health and appearance of hair

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### ► INTRODUCTION

- D-LAB's Pure Keratin is widely recognized as being one of the leading products in the field of nutricosmetic hair care.

- It is almost completely composed of Cynatine®, a high-grade, premium and highly purified keratin concentrate.

- The efficacy of Cynatine® on the health and appearance of hair has been proven by a clinical study.

- It took place at the University of Pavia, Italy and was published in the Scientific World Journal (2014).

### ► I. CLINICALLY PROVEN EFFECTS OF CYNATINE®

#### I.A Characteristics of the study

- Subjects : 48 women between the ages of 40 and 71 years old with damaged hair

- Study Type : parallel group, double blind randomized study vs. Placebo

- Site : University of Pavia, Italy

- Length : 90 days

- Dosage : 2 x250 mg/day of Cynatine® (vs. Placebo)

#### I.B Study results

Results on Day 30	Results on Day 90
<ul style="list-style-type: none"> <li>• Improved appearance</li> <li>• Decrease in loss of hair</li> </ul>	<ul style="list-style-type: none"> <li>• Improved tensile strength</li> <li>• Improved amino acid composition</li> <li>• Improved anagen/ telogen phase ratio</li> </ul>

#### I.C Proven efficacy

- Cynatine™ supports healthy hair and healthy hair growth.

- Cynatine™ is bioavailable.

- Cynatine™ improves the shine and brightness of hair.

- Cynatine™ improves the structure and the strength of hair.

- Cynatine™ decreases hair loss from everyday activities.

#### I.D Available statistics

- Reduction of hair loss by 16.9% in 30 days, then 38.9% in 60 days, and 46.6% in 90 days.

- Improvement of the anagen (growth) / and reduction of telogen (death) phases (by 9.2% each) as well as improvement of the anagen / telogen ratio after 90 days.

- Increases the proportions of Serine (3,2%), Glutamic Acid (3,5%), Cysteine (8,6%), and Methionine (4,8%) in the hair after 90 days. The increased proportion of these four amino acids is linked to healthier hair.

- Increases (5.9%) hair strength after 90 days.

- Increases hair brightness scores from baseline were

0.30 after 30 days, 0.9 after 60 days, and 1.1 after 90 days. Compared to placebo, the improvement in appearance was on average 17.6% better after 30 days, 35.3% after 60 days, and 47.1% after 90 days.

- Finally, 91.7% of the subjects being administered Cynatine® felt the product was sufficient for hair at the end of the study (vs. 87.5% of the participants in the placebo group who felt that it was ineffective for hair).

### I.E Material and methods

One of the major advantages of this study were the various clinical trials put in place to observe the improvements to the subjects' hair :

- **Pull test** : evaluates hair loss. Gentle traction was exerted on 3 distinct locks of hair and the number of extracted hairs was counted.
- **Anagen/telogen evaluation of the hair** : using close up photographs of dyed hair to evaluate the growth phase of the hair.
- **Amino acid composition of the hair** : On hydrolyzed hair using RPLC\*.
- **Tensile strength of the hair** : Using a Tensolab® 2512A dynamometer.
- **Clinically evaluated appearance of the hair** : evaluated by a licensed dermatologist according to the subject's hair brightness and luster, on a scale of 1 to 3.

\*RPLC : Reverse Phase Liquid Chromatography

### ► II. CONCLUSION

- **Fast & Easy** : Effective as early as 30 days at 1 capsule/ day of D-LAB Pure Keratin.
- **Nutrients** : Cynatine® is a highly bioavailable keratin, the primary nutrient and component of hair.
- **Influence** : Cynatine® has a significant influence on the quality of hair.
- **Satisfaction** : More than 90% of the subjects

in the Cynatine® group declared it sufficient for hair.

- **Statistically Proven** : the results obtained for the Cynatine® group were statistically different from that obtained for the placebo group, thus demonstrating its efficacy and impact.

### ► III. REFERENCES

Christina Beer, Simon Wood, and Robert H. Veghte ; A Clinical Trial to Investigate the Effect of Cynatine HNS on Hair and Nail Parameters ; The Scientific World Journal Volume 2014, Article 641723, page 6.