A High-Strength AHA/Bionic Acid Skincare Regimen in Combination With a Daily AHA Home Peel Containing N-Acetyl Tyrosinamide (Aminofil®) Significantly Improves Signs of Aging on the Face

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Introduction
An effective skincare regimen provides patients with enhanced antaging and skin quality benefits between visits to the dermatologist. Increasingly, home peels have emerged as a desired consumer product for their ease of use and immediate results noted through skin radiance and smoothness, as well as long term antiaging effects that can be observed with consistent use. A daily home peel was formulated with 0.5% N-acetyl tyrosinamide (Aminofil®), a novel amino acid derivative shown to increase collagen in aged skin cells;1 increase hyaluronic acid in skin and cartilage cells in vitro; and increase pro-collagen and GAGs in vivo via histological assessment of human skin biopsies.1 The daily home peel also contains 10% glycolic acid, an alpha-hydroxy acid (AHA) with clinically proven antaging benefits for photodamaged skin.

This poster presents a summary of a 12-week clinical study evaluating the tolerability and cosmetic effects of the daily home peel in conjunction with a high-strength AHA/Bionic Acid containing regimen.

Study Methodology

<table>
<thead>
<tr>
<th>Design</th>
<th>A 12-week, Institutional Review Board approved, single center, prospective study with direct comparison to baseline condition</th>
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<tbody>
<tr>
<td>Population/Inclusion</td>
<td>Caucasian, non-sensitive skinned women, aged 40-60 years, with mild/moderate to marked facial photodamage (including fine lines, wrinkles and/or pigmentation; score of 1.5-3 on 0-4 scale)</td>
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<tr>
<td>Exclusion</td>
<td>Known allergies to skincare products; History of disease or use of medication that could interfere with evaluations; routine use of antiaging topical products, including prescription retinoids within 3 months; hydrosolubos, retinol and other antiaging cosmetics within 2 months; cosmetic procedures (e.g. peels, laser, light treatments, microdermabrasion) within 6 months; and pregnancy/lactation</td>
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<tr>
<td>Duration/Evaluation Time Points</td>
<td>12 weeks with evaluations at weeks 0, 6 and 12</td>
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Evaluation Tools

- **Clinical Measures**
  - Finer lines, wrinkles, motified pigmentation, skin laxity, large pore size and visual and tactile roughness were graded using a 0-4 scale with half point increments; predefined descriptors were anchored for each parameter at whole point values.
  - Evaluation/Study Methodology
    - Time Points
      - Weekly: 0, 6, and 12 weeks
      - Monthly: 0, 6, and 12 weeks
    - Visual grading was conducted by the Board certified dermatologist

- **Photography**
  - Standardized digital photographs of faces were taken using the Canfield Omniview camera system

- **Subjective Measures**
  - Self-assessment questionnaires were completed by subjects

- **Statistics**
  - Clinical improvements were compared to baseline at each visit using the Student’s T-test (P<0.05)

| Safety | Adverse events were recorded and tabulated |

Test Products

The daily home peel was used in conjunction with a high-strength AHA/Bionic Acid containing regimen. A gradual introduction of the daily home peel was initiated to allow the skin time to acclimate and to minimize any stinging/burning that can sometimes be associated with use of high-strength AHA's. In addition, the study was provided with a mild alternate PHA-containing night cream for subjects that needed further time to acclimate to the regimen.

Table 1: Dermatologist Grading

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Week 6</th>
<th>Week 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Lines</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Wrinkles</td>
<td>58</td>
<td>58</td>
</tr>
<tr>
<td>Mottled pigmentation</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Skin Laxity</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Large Pore Size</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Visual Roughness</td>
<td>64</td>
<td>64</td>
</tr>
</tbody>
</table>

Product and Usage

- Daily Home Peel (NeoStrata® Smooth Surface Daily Peel)
  - 0.5% N-acetyl tyrosinamide
  - 10% Glycolic Acid

Regimen

- Cleanser (NeoStrata® Foaming Glycolic Wash)
  - Twice daily; morning and night
- Day Cream SPF 20 (NeoStrata® Ultra Daytime Smoothing Cream SPF 20)
  - Once daily in the morning
- Night Cream (NeoStrata® Ultra Smoothing Cream)
  - Once daily at night; after application of Daily Home Peel

Results

- **Self-Assessment**
  - Study participants agreed skin is more firm (82%), brown spots are less apparent (88%), skin has better clarity/radiance (91%), pores are less visible (82%) and skin texture and smoothness improved (88%). (Figure 2)
  - On average, subjects thought the regimen made their skin look younger as early as 3 weeks after baseline.

- **Tolerability**
  - The high-strength regimen was well tolerated although some users reported stinging and dryness.
  - Mild irritation was low with mean scores of less than 0.05.

- **Costume**
  - Uniforms for all consumers:
    - Medial care: uniform
    - Uniforms for all consumers:
      - Medial care: uniform

- **Conclusions**
  - The regimen of AHA/Bionic Acid products including the daily home peel containing N-acetyl tyrosinamide (Aminofil®) and glycolic acid showed significant firming, skin smoothing and pigmentation-evening benefits.
  - Dermatologist grading demonstrated statistically significant improvements in the visual signs of aging: this was further supported by clinical photography as well as self-assessment for firmness, pigment, clarity and texture.
  - The high-strength AHA regimen was tolerated under direction of a physician. An acclimation period is suggested when recommending this regimen.
  - Addition of a daily home peel to a homecare product regimen is an effective antaging option to complement the benefits between visits to the dermatologist.

**References**
