In this year's last - this time electronic - issue of our cosmetic newsletter we are proud to announce that Comercial Quimica Massó is celebrating its 10 years anniversary in Central Eastern Europe.

Looking back at this period it seems that we are living in the era of company buyouts, fusions and mergers and as a consequence it is every time more difficult to find the well-known brands of raw materials and even more, to find the right contact where to purchase them. It is true that such changes also affected some of our represented companies, nevertheless, we believe that in this period we managed to provide a relative stability and continuity with our product range and their availability.

This continuity is also valid regarding our cosmetic newsletter, that appeared without interruption during this period and we have arrived now to issue nr. 34.

In this current issue we will present you five cosmetic ingredients that are really appreciated by formulators due to their advantageous properties and their strong relation to presently very trendy applications.

We would also highlight our new principal, Biospectrum Inc., a leading developer and supplier of innovative specialty personal care ingredients from Korea. With profound knowledge and experience on PLANTs, formulation, and biological science, BioSpectrum is able to design and develop high-quality active ingredients for cosmetics.

Ferenc Elekes - sales manager

MASSOCARE ININ Not only emollient

MASSOCARE ININ (INCI: Isononyl Isononanoate) is a highly interesting cosmetic ingredient. It delivers skin conditioning effect and supplies a non-greasy and rich feeling. It improves dramatically the dispersion of solid ingredients such as pigments and physical sunscreens. MASSOCARE ININ increases the spreadability of the formulations, which translates into a lighter sensation upon application on the skin. All in all, an emollientester with specific characteristics that make it suitable for all kinds of skin care products, but especially for those including pigments or inorganic UV filters: that member of Comercial Quimica Masso range of products is a very interesting ingredient of some of the most trendy personal care products: BB & CC Creams and Sun Protection preparations.

In order to assess the impact of MASSOCARE ININ in BB & CC Creams, CQM’s technical team have developed a series of formulations using it as main emollient at 10 – 12%. The results are impressive: it performs much better than linear esters and other branched esters in many senses. This is:

◊ **Pigments Dispersion**: The uniformity of the dispersion is much better when MASSOCARE ININ is the main emollient. This has a positive and direct impact on formulation stability.

◊ **Product application**: The formulations based on MASSOCARE ININ show excellent spreadability, which results in a very easy application and in the formation of a thin, uniform film onto the skin. This spreading property reduces significantly the sticky, heavy sensation derived from the use of mineral pigments, providing a lighter sensation.

◊ **Skin feeling**: By using MASSOCARE ININ as main emollient, the overall formulation delivers a rich, nourishing with no sticky, greasy or waxy after feel.

Formulation wise, it is important to highlight that MASSOCARE ININ is a colourless and odourless liquid, compatible with most cosmetic ingredients, including silicones.

Do not hesitate to request prototype formulations in order to evaluate all the above by yourself!
AZELOGICINA® (INCI Name: Potassium Azeloyl Diglycinate) is a multifunctional ingredient of new generation, obtained by condensation of Azelaic acid and Glycine. It exhibits whitening and sebum normalizing properties and the glycine content also gives moisturization and elasticizing effect. Completely water soluble, it is recommended for oily, seborrheic and impure skin, or melanic spots, representing a valid alternative to Kojic Acid dipalmitate and Arbutin.

Since its launch some years ago, SINERGA have run many tests that have proven the high efficacy of AZELOGICINA®:

- **IN-VITRO studies:**
  - Tirosinase inhibition activity.
- **IN-VIVO studies:**
  - Radiance (brightness). After 14 days of treatment with AZELOGICINA® 5% cream the skin is 6 times more luminous than the time 0.
  - Hydration. 3 weeks treatment with AZELOGICINA® 3% aqueous solution enhances skin hydration of 12,7% on the forehead and 8,2 % on the cheeks.
  - Elasticity. AZELOGICINA® 3% aqueous solution performs a significant increase in skin elasticity.

In order to answer to the market demand for high performing whitening actives, SINERGA have put in place a forth in-vivo colorimetry assay in order to demonstrate the power of AZELOGICINA® as lightening agent. Lightening efficacy was evaluated on both hyperchromic and spotless skin areas. During 3 weeks, each volunteer applied an AZELOGICINA® 5% cream twice a day. The skin colour was measured by a Minolta Colorimeter on treated/untreated spot and on treated/untreated skin. Variation in total skin brightness was evaluated by matching and combining variations in all skin chromatic parameters (red-green and yellow-blue components).

The study concludes that AZELOGICINA® cream enhances skin brightness (light reflection) by preventing the increase in skin chromatic components.

In summary, AZELOGICINA® is a very powerful lightening agent, ideal for skin care products such as BB and CC creams, dark spots treatments, hand creams and facial creams and serums. The recommended dosage is 2-5%.
DONGBAEK (Tsubaki) Oil
Skin soothing & Anti wrinkle

Dongbaek Oil (INCI: Camellia Japonica Seed Oil) has been known as natural oil in both Korea and Japan and gained from seeds of 'Camellia Japonica'. Traditionally, it was consumed as foods and cosmetic care for damaged hair to provide shine and protection in Japan whereas Koreans have used Dongbaek Oil for hair as well as foods and medicinal uses of asthma, skin rash and inflammation. Based on that traditional use, BioSpectrum Inc. started a project in order to investigate the potential properties of Dongbaek Oil as skin care ingredient. The result: Dongbaek (Tsubaki) Oil (INCI: Camellia Japonica Seed Oil), a skin care active that provides moisturization and anti-inflammation as well as anti-aging. Especially, the effect of anti-inflammation revealed the equivalent or greater effect compared with bisabolol under the equal concentration.

BioSpectrum Inc. has tested Dongbaek (Tsubaki) Oil thoroughly in order to identify all the properties of that active when used as in skin care applications. That includes:

- **Anti-oxidant power.** Dongbaek (Tsubaki) Oil has an ORAC value of 181%, meaning above olive oil and close to Vitamin C
- **Anti-wrinkle effect.** Dongbaek (Tsubaki) Oil increases the collagen synthesis and inhibits the TNF-α induced MMP-1 in a dose dependent manner. Besides those two in-vitro assays, BioSpectrum Inc. conducted an in-vivo clinical study evaluating the improvements in skin roughness and the changes in wrinkles depth, and confirmed that Dongbaek (Tsubaki) Oil is a powerful anti-wrinkles active.
- **Anti-inflammatory and soothing properties.** BioSpectrum Inc. has proven that Dongbaek (Tsubaki) Oil inhibits skin’s inflammation pathway in three different points. Moreover, its soothing properties have been compared to those of bisabolol in-vivo; the soothing efficacy of Dongbaek (Tsubaki) Oil is better than that of bisabolol when the erythema induced by SDS is measured. The same study has been used in order to evaluate the compared efficacy of both actives in terms of TWEL improvement, and again Dongbaek (Tsubaki) Oil shown to be better.
- **Moisturization.** The in-vivo evaluation of the moisturizing activity of Dongbaek (Tsubaki) Oil has been done by measuring the inhibition of TEWL after application of a cream with 2% active, compared to the placebo; the areas treated with Dongbaek (Tsubaki) Oil show a high decrease in TEWL demonstrating the protective effect of the oil on the skin. A second in-vivo assay has been performed, in this case evaluating the skin barrier recovery activity after SLS treatment; Dongbaek (Tsubaki) Oil increase the skin recovery rate compared to placebo and to glycerine.

In summary, Dongbaek (Tsubaki) Oil is a cosmetic ingredient for sensitive and matured skin and can be used in various types of cosmetic application. **Dosage:** For skin soothing, use ~0.5% and for anti-wrinkle, use 1~5%

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LARACARE™ A200
The power of Larch

Extracted by Lonza from the larch tree harvested in North America Laracare™ A200 (INCI: Galactoarabinan) is a highly functional polysaccharide. It is a natural (Ecocert approved), mild, non-irritating and water dispersible polymer.

Laracare™ A200 brings many benefits to personal care products:

- **Reduces Trans Epidermal Water Loss (TEWL) providing long lasting moisturization.** This property has been proven in-vivo. A test formula with 2% Laracare™ A200 indicated a significant reduction in TEWL at 1 hour through 4 hours compared to placebo
- **Decreases the appearance of superficial skin fine lines.** Once again, this claim has been substantiated by a clinical assay with a cream containing 5% Laracare™ A200. The image analysis of silicon replicas showed an improvement of 19.1%
- **Enhances emulsion uniformity and promotes stability.** The droplet size of an O/W emulsion is reduced by 2-3 microns from incorporation of Laracare™ A200. Moreover, it increases the dispersibility and uniformity of physical sun filters and pigments.
- **Boosts the SPF of sunscreens.** The reduction of emulsion droplet size and the improved dispersion of sun filters is the main reason for that. To prove it, different sunscreen blends in an emulsion base were tested in vitro using an SPF 290 SPF analyser. The results have shown SPF enhancements ranging from 5% to 60%
- **Acts as an AHA booster and primary exfoliant without irritation.** An in-vivo test has demonstrated a dose-dependent, statistically significant improvement in skin exfoliation when using Laracare™ A200 in conjunction with AHA: 16.29% improvement with 2% Laracare™ A200 and 20.38% improvement with 5% Laracare™ A200. Besides that, it has also reported a statistically significant improvement in skin exfoliation when used at 5% as primary exfoliant compared to AHA
- **Hair heat protection and increased moisturization.** Trials run with European brown hair tresses proved that Laracare™ A200 is substantive to hair, protects it from heat damage and increases its moisturization

The recommended use level of Laracare™ A200 is 1.0% - 5%.
IBR-Dormin® (INCI: Narcissus Tazetta Bulb Extract) is a natural aqueous extract from Narcissus bulbs in their dormant stage that is able to slow cell proliferation. Among cell types affected are also keratinocytes and sebocytes.

It is well known that the excess of sebum production by sebocytes leads to problems such as seborrhea and acne. A way to control sebum production could be the reduction in sebocytes proliferation that leads to reduced production and secretion of sebum thereby reducing oiliness of the skin. IBR have run an in-vitro test and a clinical study with IBR-Dormin® in order to demonstrate that hypothesis.

◊ IN-VITRO

Treatment of sebocytes cultures with 0.05%-0.4% IBR-Dormin® for five days. A dose responsive reduction in sebocyte number, relative to untreated control, was observed, ranging from 48.9-89.3%, respectively.

◊ CLINICAL STUDY

Evaluation of the efficacy of products containing 1.5% IBR-Dormin® on the reduction of oiliness.

Comparison of 4 formulations: 1.5% IBR-Dormin® - 1.5% salicylic acid - commercial product - placebo.

After 8 weeks (2 weeks washout + 6 weeks treatment) the following results were obtained:

→ Sebometer measurements:

IBR-Dormin® and salicylic acid formulations show significant reduction in sebometer readings with baseline from day 3 until week 4.

Commercial formulation shows significant reduction in sebometer readings with baseline from day 3 until week 2.

Placebo shows significant difference only at day 3 and not at subsequent time points.

All in all, we can conclude that IBR-Dormin® controls and reduces cell proliferation of various types of cells including sebocytes, which may assist in reducing skin oiliness, shine and improving overall appearance. In combination with ingredients that control the acne related bacterial growth one may significantly affect acne outbreaks as well as post acne scaring and pigmentation.