

Ashland's way of using the power of nature



A conversation with Justine Cotton,
Global Marketing Manager,
Vincience biofunctionals, Ashland

Justine holds a master's degree in Biology from the Ecole de Biologie Industrielle (France) and an MBA, in Marketing and Strategy from ESCE in Paris. She is an expert in bioactive ingredients with a technical and marketing perspective, she has been serving the cosmetics industry for the past 13 years, and is well versed in skin care and active ingredient market throughout the world.

EURO COSMETICS: *Natural and biological products are more in demand today than ever. With your new product Nightessence™ biofunctional, you have taken up the trend toward sleeping beauty, which is supposed to support the skin in this phase. What technology lies behind this?*

Justine Cotton: Nightessence is our new biofunctional specifically tailored to target skin's needs at night. This bioactive is a new type of natural essence extracted from one of the best quality of lavender flower, the *Lavandula Angustifolia*, sourced in the Alps of Provence.

Nightessence has been eco-conscious designed from field-to-skin: every steps of the development from cultivation to production has been carefully controlled to respect nature with minimal impacts, lower carbon footprint in transporting the flowers (just 140 km from our factory), the manufacturing process does not use of toxic substances, only nature-derived and only generated natural substances.

EURO COSMETICS: *What scientific examinations have you conducted to analyze the skin's needs at night?*

Justine Cotton: Our team of scientists have deeply studied skin's needs and its mechanisms during night-time. They understood the biology of skin that we defined at the noctology™. Three key stages must be optimized to get a reset of skin overnight: night repair, night cleanse and night renew. Some key molecules of the night need to be activated such as the skin's melatonin and its enzyme, time-zymase, the nocturnin protein linked to cellular cleansing. Repair of DNA damage, which are generated during nighttime, several hours after sun exposure, is also a critical stage for the skin to recover while we sleep.

Something that you may don't know, but while we sleep, our skin works hard to be repaired and reset for the next day! Melatonin produced in our brain allows us to fall asleep however when produced in our skin by keratinocytes, it has multiple properties triggering several essential nighttime processes such as repair and recovery.

EURO COSMETICS: *And what can you tell us about the results?*

Justine Cotton: Results shows that by op-

timizing skin's noctology™ and by activating skin's nocturnal molecules and processes usually dysregulated by our daily lifestyle, skin looks rapidly rested, renewed, refreshed with relaxed facial features and less dark circles. For some parameters such as skin's luminosity and fine lines, we obtained significant results in just one night of application of a cream containing Nightessence at 1% against a placebo. Testing done in our laboratory in Shanghai was performed on volunteers who had signs of sleep-deprived skin as they usually work the night shift or stay up very late. Results were highly significant, and their skin shows fewer dark circles and more brightness after 28 days.

EURO COSMETICS: *Sleeping yourself beautiful, a trend to which consumers are paying more and more attention. How do you regard this development?*

Justine Cotton: Consumers are more and more aware of the link between sleep and the appearance of their skin. In the health and wellness category, the beauty sleep trend or the clean sleep trend is rising in the same way of the clean diet or clean



the flower and the production of phyto-molecules such as polyphenols and epigenetic regulators which are known as plant small RNAs. The PSR technology™ is the only one to capture these phyto-compounds (23 characterized), the essence of Provence and the uniqueness of lavender from Valensole place: its unique environment, its unique capacity to bloom and resist heat and sun during the hot days, enabling nighttime calming benefits. Ashland is serious about the environment and cares about the future, so the PSR technology™, compliant to COSMOS standard for natural and organic cosmetics, fits well as respects the principles of green chemistry. This is a water-based technology, there is no use of toxic solvents, only nature-derived substances.

EURO COSMETICS: *How is your product different than other sleep-focused skin care products?*

Justine Cotton: This is the first biofunctional tailored to optimize skin needs at night. Night care regimen with cosmetic products for the night have always existed however Nightessence is the first bioactive of its kind associated with strong research on the understanding of skin's night mechanisms and *in vitro* testings on nocturnal processes. Nightessence not only addresses sleep-deprived skin but all skins stressed by daily life (sun, visible day light, exposure to Ligh-At-Night and blue light).

EURO COSMETICS: *Recently you organized a webinar to inform your customers about Nightessence™. What was the reac-*

beauty. Looking deeply at the skin needs at night was the initial thought in the development of Nightessence so that women who do not sleep enough, who have signs of sleep-deprived skin with more wrinkles, signs of fatigue under the eyes, or duller tone can find a truly efficacious solution.

EURO COSMETICS: *How does sleep influence our daily lives?*

Justine Cotton: Sleep is critical to stay healthy inside and outside. The "outside" is represented by our skin which reflects the quality and length of sleep received every night. Unfortunately, more and more people are experiencing sleep problems. Only 20% of the people sleep well every night. Our hectic lifestyles, the fact that we are working late, or go to bed very late using a lot our electronic devices, is responsible to sleep problems and is the reason of our social jetlag which is created when our social life is not synchronized with our body internal clocks.

EURO COSMETICS: *Blue light and stress put a strain on skin. How can Nightessence™ counteract this?*

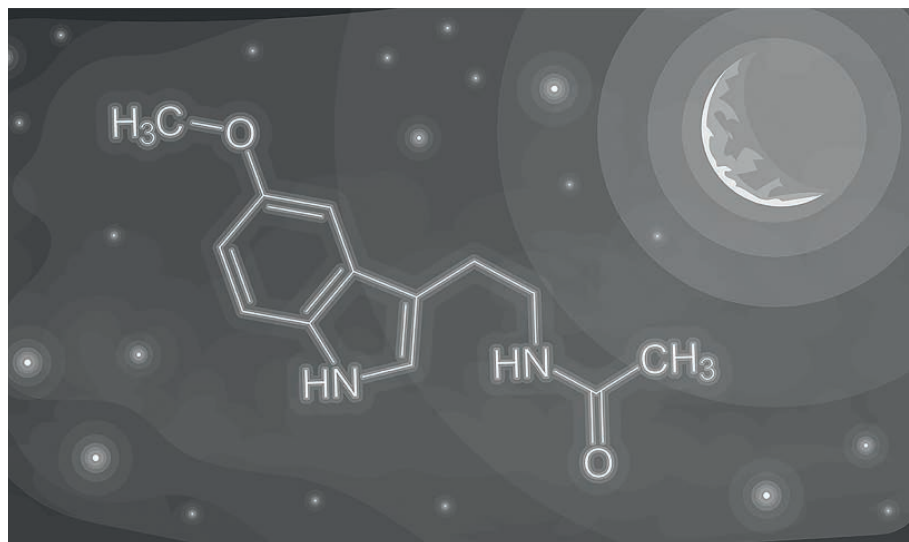
Justine Cotton: Recent studies have shown that blue light can disrupt melatonin production and is responsible for several damage in skin cells such as oxidation. Visible light (which contains blue light radiations) has also been reported to create dark DNA damage; Nightessence helps skin counteract the negative effect of

blue light, visible light and also more generally of sun by limiting oxidative stress formation, by limiting generation of dark DNA damage and optimizing skin renew despite a stress of visible light.

EURO COSMETICS: *What can you tell us about the manufacturing process and what was taken into special account there?*

Justine Cotton: Ashland's patented and proprietary Plant Small RNA technology (PSR) has been applied to extract the uniqueness of the lavender flower coming from South of France. Lavender flower named the blue gold of Provence, shows amazing properties of resilience during warm summer as flowering occurs in July when it is very hot.

We had been inspired by the properties of





Rosa centifolia

tion like after the webinar?

Justine Cotton: Nightessence has been very well received by our customers as for the first time, it offers a simple and clear understanding of the skin mechanisms at night, noctology™. Understanding the science and what is critical to optimize and repair during nighttime, when we sleep, so that skin could be reset is key to develop new concepts and formulations with innovative storytelling.

EURO COSMETICS: *Using your company's own, patented PSR technology™ (Plant Small RNA) you have obtained an extract from a very special type of rose, the rosa centifolia, and developed a new effective ingredient. How did this come about and what's special about it?*

Justine Cotton: The Rosa centifolia, used to develop Rosaliss, is a very unique rose. If cosmetic was a flower, it would be a rose and it would be a rose, it would be a Rosa Centifolia. Rosa Centifolia is the queen of flowers, a legendary flower, the preferred rose of perfumers to create luxury fragrance as this rose has such a unique sweet scent.

Rosa centifolia is also exceptional as blooming only during the month of May, in the Grasse region in Provence. The rose bush is very resistant and has the capacity to heal by producing specific phytochemicals and plant small RNAs. Using our PSR technology™ to extract its specificities was a real evidence for us. Consumers are

looking for ingredients that speak to them, with a strong history, a link with the soil. Rose growers have such unique relationship with their fields.

EURO COSMETICS: *What effect do the active ingredients contained in the rose have on our skin?*

Justine Cotton: Rosaliss™ is a 100% natural extract of Rosa centifolia flower to help skin achieve a flawless repair and get closer to perfection. Rosaliss™ development was inspired by recent research in regenerative medicine based on a model of unlimited regeneration and scar-free healing: the axolotl.

As we age, skin capacity to heal diminishes and skin imperfections may appear.

Rosaliss™ has a unique composition rich in plant small RNAs and tannins to helps

skin increase its capital to self-repair and preserve microbiome from sun damage. As a vegetal pre-biotic, it helps preserve the healthy bacteria balance between commensal bacteria and potential pathogenic bacteria. Rosaliss™ biofunctional has also demonstrated in tubo, a postbiotic effect with the conversion of polyphenols by skin's microbiome into more active molecules for the skin.

EURO COSMETICS: *Now you have new clinical study data available. What data?*

Justine Cotton: The new clinical data, performed in our laboratory in Shanghai on 35 volunteers confirms that Rosaliss formulated at 1% in a cream helps perfect skin texture, tone and blemishes for a younger-looking skin. Results obtained shows that skin looks brighter & less sensitive, skin is more evened with a smoother texture and a reduction in the appearance of fine lines and pores. Skin is also more hydrated, looks firmer and imperfections such as blemishes appear less apparent.

EURO COSMETICS: *In which products can this effective ingredient be used?*

Justine Cotton: Rosaliss can be used in age perfecting products for age-marked skin, for skin repair concept, cream to smooth skin texture and pores, skin microbiome care concept (prebiotic, postbiotic), cosmetics suitable for people who may be prone to acne or with post-acne marks. It will also fit well for sensitive & mature skin formulation.

EURO COSMETICS: *Thank you for the conversation.* ■

