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Ashland transforms the science behind beauty at in-cosmetics 2012

BARCELONA, Spain – Ashland Specialty Ingredients, a commercial unit of Ashland Inc., announced breakthrough anti-aging technologies for skin and hair at in-cosmetics 2012 and showed how the biofunctional approach to personal care is transforming the science behind beauty. The new offerings are Ashland's first since it [acquired International Specialty Products Inc. \(ISP\)](#) to accelerate the commercialization of [meaningful innovations](#) and to solve some of the most complex challenges within the personal care industry.

Introducing Peptide Q10™ biofunctional, a bioengineered peptide designed to boost the skin's natural production of coenzyme Q10, Ashland showed that it may be possible to restore a balance of CoQ10 in the epidermis with conventional creams and lotions. Introducing Telosense™ biofunctional, a special complex of hydrolyzed yeast and soya proteins that help preserve chromosomal telomeres, Ashland showed how formulators may focus on cell integrity in support of beautiful skin.

Procataline™ biofunctional, a special pea extract designed to help combat oxidative stress in hair follicles, is a breakthrough technology for use in leave-on hair care products, as demonstrated by in vitro and ex vivo studies. Chromafend™ biofunctional, an extract of flax seed, is aimed at preserving natural hair color. Follisync™ biofunctional, made with vicia faba seed extract, targets [CLOCK genes](#) in support of robust hair growth cycles. Ashland also introduced N-Hance™ 4572 conditioning polymer to help formulators improve the efficiency of shampoos containing natural or synthetic oils and to support more sustainable rinse-off products.

According to James Mish, group vice president, Care Specialties, Ashland Specialty Ingredients, Ashland is leveraging its newfound strengths in support of better formulation outcomes for key customers. "With such a strong 'bench' in research, development, formulation expertise and personal care market knowledge, we best serve the industry by putting these resources to work in support of benefits that generate extraordinary consumer interest," he explained.

"If we start by asking what's needed for breakthroughs in the areas of skin and hair care, sun or oral care, we're more likely to develop the technologies that will change the way the industry makes and sells products of distinction. It's why we say, when it comes to personal care ingredient technology, we are transforming the science behind beauty."

Ashland's biofunctional approach

In transforming beauty at a cellular level, Ashland is leveraging the power of biofunctional ingredients in formulations. For skin care, Telosense biofunctional is a special complex of hydrolyzed yeast and soya protein that helps preserve telomeres, which cap and protect cell chromosomes. It is designed to help protect telomeres by boosting the expression of Telomeric Repeat Factor 2 (TRF2) proteins, an important component of the Telomere Sheltering Complex™ structure. The ingredient will find application primarily in skin care formulations aimed at enhancing the appearance of skin. Also for skin, Peptide Q10 biofunctional is a novel approach to help boost coenzyme Q10 in skin cells. Using a specially bioengineered peptide, Ashland showed in vitro that the technology boosts endogenous synthesis of coenzyme Q10, the powerful antioxidant recognized as an effective ingredient against premature skin aging.

Biofunctional for hair

Ashland's additions to its BiotHAIRapy™ family of ingredients demonstrate how a biofunctional approach to hair care is the leading edge of beauty-enhancing technology. Procataline biofunctional is specifically formulated to focus on oxidative stress at the follicle. Demonstrated by in vitro studies, the formulation helps to maintain high levels of select protein, such as P63, a protein associated with epidermal tissue renewal. Chromafend biofunctional may help conserve melanin in the hair follicle. Research shows that Chromafend biofunctional helps to boost essential protein expressions for protecting natural hair color, as demonstrated by in vitro and ex vivo studies. Follisync biofunctional is based on research that shows the hair growth cycle may be linked to CLOCK genes. This complex may enhance the expression of CLOCK proteins in vitro to help regulate hair in the anagen phase.

New conditioning series

The first in a new series of conditioning technologies from Ashland, N-Hance 4572 conditioning polymer is a high charge density, high molecular weight polymer system with better wet-comb and oil-deposition performance than today's commercially available conditioning polymers. When compared with traditional cationic guar, the new offering is demonstrated to significantly improve the distribution and total deposition of silicone and natural oils such as jojoba oil and meadowfoam across hair strands. N-Hance 4572 conditioning polymer may be used to lower formulation costs and produce more sustainable shampoo and body wash products.

Mish added, "We want to develop and supply new and novel ingredients that give our key customers the credentials they need

to create and sustain successful brands. Whether it's a key customer that wants to claim a new product attribute or another that wants to establish a new product category with novel technologies, we're organized to make that happen for those who work with us."

About Ashland Specialty Ingredients

Ashland Specialty Ingredients offers industry-leading products, technologies and resources for solving formulation and product performance challenges in key markets including [personal care](#), [pharmaceutical](#), [food and beverage](#), [coatings](#) and [energy](#). Using natural, synthetic and semi-synthetic polymers derived from plant and seed extract, cellulose ethers and vinyl pyrrolidones, Ashland Specialty Ingredients offers comprehensive and innovative solutions for today's demanding consumer and industrial applications.

About Ashland

In more than 100 countries, the people of Ashland Inc. (NYSE: ASH) provide the specialty chemicals, technologies and insights to help customers create new and improved products for today and sustainable solutions for tomorrow. Our chemistry is at work every day in a wide variety of markets and applications, including [architectural coatings](#), [automotive](#), [construction](#), [energy](#), [food and beverage](#), [personal care](#), [pharmaceutical](#), [tissue and towel](#), and [water treatment](#). Visit www.ashland.com to [see the innovations we offer](#) through our four commercial units –Ashland Specialty Ingredients, Ashland Water Technologies, Ashland Performance Materials and Ashland Consumer Markets.

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