

## In-Cosmetics Global 2026: Expanscience unveils OSMOLYA®, a new bio-inspired active ingredient for cellular hydration, for skin and hair

**La Défense, April 2026** – At the **In-Cosmetics Global 2026** trade show, Laboratoires Expanscience will present **OSMOLYA®**, their new naturally derived active ingredient designed to optimize **cellular osmoregulation** and enhance hydration in both skin and hair. Extracted from *Iresine weberbaueri*, also known as flor blanca, an endemic Peruvian plant renowned for its remarkable adaptation to extreme environments, this active ingredient fits perfectly within Expanscience's bio-inspired innovation approach.

**Expanscience will be exhibiting at booths 3H20–3H30 and will host a conference on OSMOLYA® on April 14 at 11:00 a.m. in Technical Theatre No. 1.**

### **A bio-inspired active ingredient to address modern hydration challenges**

Modern hydration is no longer limited to supplying water to the skin's surface: it now aims to optimize hydration directly at the cellular level by supporting the resilience and proper functioning of cells exposed to daily stressors.

In this context, OSMOLYA® is a water-soluble extract rich in **betaine (≥13%)** and **polyphenols (≥6%)**, two key families of molecules naturally involved in protecting against osmotic, oxidative and inflammatory stress.

Just like *Iresine w.*, which survives extreme environments thanks to its ability to finely regulate its internal water balance, OSMOLYA®:

- **Activates the cellular response to osmotic stress**
- **Increases the expression and production of osmolyte transporters** (TAUT, SMIT and BGT1)
- **Improves the skin barrier by stimulating key markers** (HAS3, TGAS1, involucrin) and increasing occludin expression

- Reduces cellular damage caused by osmotic stress by **significantly decreasing inflammation and oxidative stress**

This triple action - **osmoregulation, reinforcement of the skin barrier, and antioxidant & anti-inflammatory activity** - positions OSMOLYA® as a next-generation active ingredient capable of meeting the growing need for cellular hydration.

### **Clinically proven efficacy on the skin**

Clinical studies conducted on a **multi-ethnic panel of female volunteers with dry skin** show that OSMOLYA® at 2% **improves skin hydration** from the very first hour after application, but also over the following days. These results were confirmed by **corneometry on the forearm** as well as by **TEWL evaluation on the face**. Scoring by a clinician and by the volunteers themselves also indicate a **reduction in dryness, desquamation, and roughness**. Moreover, OSMOLYA® also demonstrates a **significant improvement in stratum corneum thickness** compared with the placebo, measured by RAMAN spectroscopy, confirming its role in **strengthening the skin barrier**. Volunteers further confirm this efficacy, reporting an increased perception of hydration as early as day 3, with results confirmed after 28 days of use.

### **Proven efficacy on hair: hydration, strengthening, curl definition and anti-frizz effect**

Thanks to its high content of osmolytes (betaine) and polyphenols, OSMOLYA® also acts on the hair fiber:

- **Hydrates the hair from within** by increasing the fraction of strongly bound water in the hair fiber, as revealed by low-field NMR analysis.
- **Strengthens hair fibers.**
- **Significantly reduces frizz and improves curl definition** on type-3A hair tresses.

Compliant with the requirements of the COSMOS and NATRUE standards, our active ingredient meets the strictest international criteria for naturality, quality and transparency. These certifications ensure that the ingredient is derived from natural raw materials and processed using environmentally respectful methods.

### **An innovation fully aligned with Expanscience's CSR vision**

**Armelle LE PENIEC, Director of Cosmetic and Nutraceutical Actives at Laboratoires Expanscience, explains:**

“Thanks to its bioinspired nature and multibenefit efficacy, OSMOLYA® embodies the ambition driving Laboratoires Expanscience to develop well-being oriented active ingredients that are eco-socially designed and ever more inspired by nature and the living.”

For interview requests or additional information, our team will be available throughout In-Cosmetics Global 2026 and after.  
Please contact Mélanie SERRE ([mserre@expanscience.com](mailto:mserre@expanscience.com)) to schedule a meeting.

**For further information on the active ingredients:** <https://www.expanscience-ingredients.com/en>

**About Laboratoires Expanscience’s Cosmetic Active ingredients activity:**

Expanscience’s Natural Active Ingredients activity was established in 1977 with the upcycling of our avocado oil, a by-product of our pharmaceutical activity. Since then we have been a supplier of active ingredients for cosmetic and food supplement brands in France and internationally. We bring the best of nature to the cosmetics and nutraceutical markets with innovative active ingredients that preserve and help restore biodiversity.

With 55 years of experience in the field of plant raw materials, the expertise of technologies we have such as molecular distillation and plant extractions enables our Innovation, Research and Development (IR&D) team to design cosmetic active ingredients and 100% naturally-derived sensory ingredients, which contribute to overall mind and body well-being.

**About Expanscience:**

You don't give your all without a good reason... At Expanscience, we are a mission-driven company, and our purpose is to help everyone shape their well-being, from childhood to old age. This is what has driven us to progress, research and innovate for over 70 years. Independent at heart, we are a 100% family-owned French company with products in more than 100 countries and brands such as Mustela, Babo Botanicals, Piasclédine 300 and Iana. For us it is clear that the well-being of people cannot be separated from that of the planet, and it is in all of our hands. Our positive impact on society and the environment is recognised by our B Corp certification and through our “impACT” CSR programme, and we are committed to becoming a company with a positive impact and regenerative aim.

**Expanscience in brief**

- Founded in 1950
- 4 activities: Dermo-Cosmetics, Joint well-being and Rheumatology, Dermatology, Natural Active Ingredients
- 2025 turnover: €364.3M, 78% of which internationally
- 1330 employees et 13 subsidiaries
- 2,16% of turnover invested in research and development
- For further information : [www.expanscience.com](http://www.expanscience.com)