

# Leading Pharmaceutical Innovation



Hyaluronic  
Acid  
Experts

# Leading Pharmaceutical Innovation

Altergon, born in 2000 in Morra de Sanctis (Avellino) represents a Centre of Excellence and Innovation for the production of medicated patches and active pharmaceutical biotech ingredients (Hyaluronic Acid and GAG's).

With a total area of about 45,000 sqm, the production site of Altergon consists today of 4 manufacturing plants, 2 R&D laboratories, 2 pilot plants, a modern Quality Control and an intensive automated warehouse.

The research and development activities, the manufacturing processes, the packaging operations are performed using high quality modern technology in strict accordance with the rules and ethical principles and managed by high-qualified, experienced technical staff.

Thanks to the uniqueness of the patented processes, the company is today among the leading European producers of medicated hydrogel plasters (Flector®), Drug in Adhesive Matrix Patch (Nitroglycerin, Piroxicam Diclofenac and others) and Ultrapure, Pharmaceutical-Grade hyaluronic acid (Shyalt®).



# A CONTINUALLY EVOLVING COMPANY

**1985**

ALTERGON SA FOUNDED IN LUGANO

**2000**

LAUNCH OF AN OPERATIVE  
COMPANY IN ITALY: ALTERGON ITALIA

**2002**

ESTABLISHMENT OF RESEARCH AND DEVELOPMENT  
ACTIVITIES IN COLLABORATION WITH KEY UNIVERSITIES

**2003**

START OF SCALE UP AND  
CONSTRUCTION OF MANUFACTURING PLANTS

**2005**

AUTHORISATION BY AIFA, THE ITALIAN DRUG AGENCY,  
FOR THE FIRST DEDICATED MANUFACTURING PLANT

**2008**

AUTHORISATION BY THE FDA

**2009**

EXTENSION OF THE MANUFACTURING FACILITIES  
FOR MEDICATED PLASTERS

**2010**

SAP MANAGEMENT IMPLEMENTATION

**2011**

HYALURONIC ACID PRODUCTION  
PROCESS APPROVED BY AIFA

**2012**

FDA FULL APPROVAL FOR  
MEDICATED PATCHES PRODUCTION

**2014**

AUTOMATED WAREHOUSE

**2015**

HYALURONIC ACID SECOND  
LINE EXTENSION AND PILOT PLANT

**2016**

CERTIFICATE OF SUITABILITY (CEP) BY EDQM AND  
SUBMISSION TO THE FDA OF THE HYALURONATE DMF (MAF)

**2017**

AUTHORISATION BY AIFA & FDA FOR A  
NEW PRODUCTION LINE FOR PATCHES

# Pharmaceutical Products

## HYDROGEL PLASTER

Patch with a soft hydrogel compound, gently adheres to the skin.

Due to the drug delivery technique, grants a controlled release of the active ingredients – 12/24 hours according to the formulation.

Comfortable, easy to apply and remove, does not stain clothes, does not use volatile organic solvents and is therefore normally very well tolerated.



## DRUG IN ADHESIVE MATRIX / TRANSDERMAL PATCHES

The adhesive layer is particularly thin and dry, adheres to the skin providing a gradual release of the drug.

The active ingredient may act locally (topical patch) or in the general body circulation (transdermal systemic action).

The transdermal drug delivery technology may find wide application for example in the field of cardiac therapy as well as for antiinflammatories, hormones, in the therapy of pain.





## ORODISPERSIBLE FILMS

Orodispersible films (ODF) constitute an innovative oral drug delivery system. This dosage form is placed on patient's tongue or oral mucosal tissue, and rapidly dissolves to release the API for mucosal and sublingual absorption. As the film dissolves, the drug enters the blood stream buccally or sublingually; this leads to reduced drug exposure and to a rapid onset of action, avoiding the hepatic "first-pass".

Orodispersible films have emerged as an advanced alternative to the traditional tablets, capsules, suppositories and liquids in a wide range of pharma (and nutraceuticals) applications; they offer fast, accurate dosing in a safe, efficacious format that is convenient and portable and facilitates the compliance.



## MASKS AND SPECIAL PATCHES

Hydrogel Mask patches are formulated to soothe, refresh and hydrate the skin of face, neck and décolletè. The particular molecular structure of the Hydrogel Mask patch allows a significant quantity of water to be contained, which evaporates during the application, refreshing and hydrating the treated area and releasing the functional ingredients in the skin through osmosis.

Special patches are designed to provide more comfortable format and higher adhesiveness for specific applications (i.e. knees, elbows, shoulders). Many flexible and customised formats are available, with hydrogel and drug in adhesive technologies: rounded corners, easy peeling, not standard shapes. Special patches can be developed also with natural functional components.



# Hyaluronic Acid

## (Active Pharmaceutical Ingredient)

### THE HANa PRODUCTION FACILITIES

An innovative and patented manufacturing biotech process for the production of sodium hyaluronate (HANa) has been validated.

**Italian Patent n° 0001413257**  
**European Patent n° EP2870255B1**  
**USA Patent n° 9347079**

A Ultrapure Hyaluronic Acid - SHYALT® with "customized" molecular weights (from 40 kDa to 3 millions Daltons) is obtained starting from the cell strain *Streptococcus equi*, through a multi-step process that includes fermentation, filtration and ultra-purification up to the final packaging. The strain is deposited at the Pasteur Institute in Paris.

**Certificate of Suitability by EDQM**  
**n° R0-CEP 2014-263-Rev 00**



## A CONTINUALLY EVOLVING COMPANY

**2010** Main line built, validated and approved under ICHQ7 EUGMP part II - engineered *under ISPE* vol. 6 guideline for Biopharmaceutical Manufacturing Facilities. AIFA authorised, CEP and GMP certificate.  
**HANa - 1<sup>st</sup> line (850 sqm)**

A State of the Art multipurpose Pilot Plant equipped for the study and development of new biotech processes.

**2015**  
**Pilot Plant**  
**300 sqm**

**2016** Expansion of the Production capacity - dedicated to HANa specific for Medical Device (production under ISO 9001) Fully GMP, with a low content of endotoxins.  
**HANa - 2<sup>nd</sup> line (300 sqm)**

# API BIOTECH = HANa

SHYALT<sup>®</sup>  
ULTRAPURE  
SODIUM HYALURONATE ALTERGON

**ULTRA PURE**  
**ULTRA SAFE**  
**ULTRA MODERN**

Altergon Italia R&D labs patented a brand new process for the production of SHYALT ULTRAPURE - Ultrapure Hyaluronic Bulk. The patent recognises the originality of the process for the production of Hyaluronic Acid for pharmaceutical and medical injectable applications and formulations.

SHYALT ULTRAPURE comes in customizable batches with Molecular Weight between 40 and 3,000 Kda and Intrinsic Viscosity 0.2 - 3.2 m<sup>3</sup>/kg.

Especially suitable for intra-articular - intraocular use or for the modern concept of Cross-link with high and improved resistance to thermal production treatments.

SHYALT ULTRAPURE<sup>®</sup> is covered by CEP n° R0-CEP 2014-263-Rev 00





**Headquarters & Sales Office - Switzerland**

Via Dogana Vecchia, 2  
CH 6900 Lugano – SVIZZERA  
+41 (0)58 3601500 - [www.altergonsa.ch](http://www.altergonsa.ch)  
[info@altergonsa.ch](mailto:info@altergonsa.ch) - [sales@altergonsa.ch](mailto:sales@altergonsa.ch)

**Production Plant – R&D - Italy**

Zona Industriale A.S.I.  
83040 Morra De Sanctis (AV) – Italy  
[development@altergon.it](mailto:development@altergon.it) - [www.altergon.it](http://www.altergon.it)  
[customerhana@altergon.it](mailto:customerhana@altergon.it) - [www.hyaluronate.altergon.it](http://www.hyaluronate.altergon.it)

**Altergon Italia S.r.l.**

Registered office  
Via dell'Industria  
83030 Pietradefusi (AV) - Italy

**QR CODE**