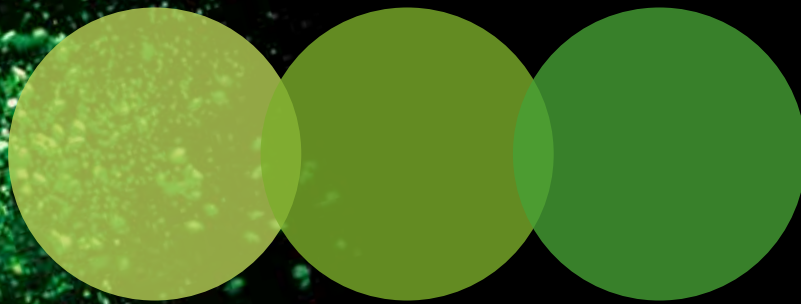
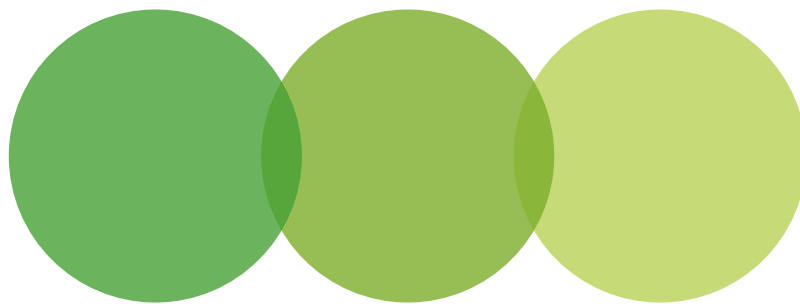


bioregen



**MULTIFRACTIONAL
BIO-INDUCTION**

AESTHETIC MEDICAL TREATMENT FOR FACE AND BODY



REGENYAL LABORATORIES

We have been working in the field of research and manufacturing of products for the continuously evolving areas of aesthetic medicine and orthopaedics for over 20 years. This is the reason why **INNOVATION** is our mission, a mission that we pursue through the creation of cutting-edge medical devices.

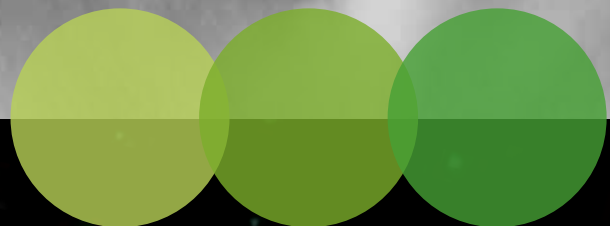
We have set up an advanced manufacturing site in Spello - in the Umbria region. Our factory has certified **SAFETY** and **QUALITY** standards and is equipped with ad hoc machinery, and gives us the possibility to be even more flexible and bring onto the market innovative products controlled by highly qualified personnel along the whole manufacturing process.

We are convinced that the concept of beauty cannot ignore the respect for nature, and have therefore, developed an environment friendly chain of production.



Characterized by patented and exclusive technologies, the whole production process, starting from the high quality raw material - the **ULTRA PURE HYALURONIC ACID** (provided by the laboratories of **FIDIA FARMACEUTICI**), pursues the standard of **GREEN INJECTIONS**.

It is the
Nature
to reveal us
its secrets



bioregen

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What is a Face and Body Bio-Induction

BIOREGEN is an injectable medical device in the form of a sterile and absorbable gel based on **HYALURONIC ACID**. It performs a bio-inductive action on tissues and reduces superficial skin blemishes of the **FACE** and **BODY**, by **HYDRATING** and **RESTORING THE DERMAL TISSUE**.

Hyaluronic Acid HA concentration 1.6%

The Hyaluronic Acid implemented is **ULTRA PURE, BIO-COMPATIBLE** and of **NON ANIMAL ORIGIN**, obtained through **BACTERIAL FERMENTATION**. The concentration of the **HYALURONIC ACID** at 1.6% provides for:

- THE REGENERATION OF TISSUES
- THE IMPROVEMENT OF METABOLIC PROCESSES



Each box contains 3 syringes
pre-filled with 1 ml
16 mg/g Hyaluronic Acid
sodium salt

MULTIFRACTIONAL BIO-INDUCTION

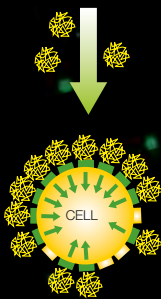
3 ACTIONS - 5 MOLECULAR FRACTIONS

The innovative formula of Bioregen, that contains Hyaluronic Acid in fractions with different molecular weights, enables to obtain an immediate and long-lasting bio-induction of the skin, which on its turn, provides for a bio-restructuring effect from the first treatment for up to six months.



LOW
MOLECULAR
WEIGHT
OLIGOMERIC
FRACTION

2 K DALTON

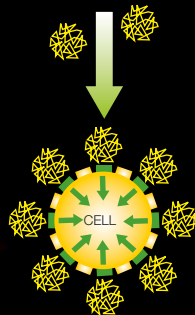


REGENERATION

STIMULATES ENDOTHELIAL CELLS, BOOSTS THE NEO-ANGIOGENESIS AND THE PRODUCTION OF COLLAGEN

MEDIUM
MOLECULAR
WEIGHT

500 K DALTON
200 K DALTON
100 K DALTON

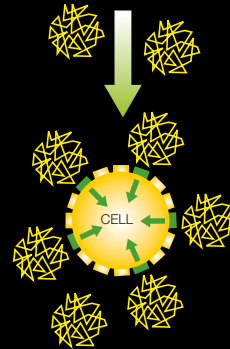


RE-STRUCTURING

BOOSTS THE PROLIFERATION OF FIBROBLASTS AND BASAL CELLS OF THE EPIDERMIS

HIGH
MOLECULAR
WEIGHT

1 MILLION DALTON

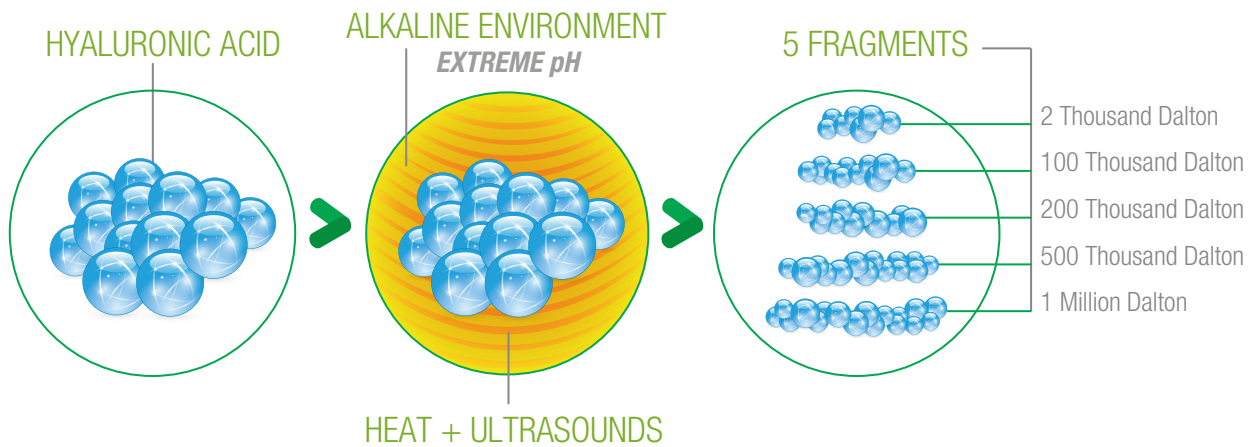


HYDRATION
AND
PROTECTION

ATTRACTS AND HOLDS MOLECULES OF WATER, CAPTURES FREE RADICALS, BOOSTS METABOLIC EXCHANGE

MULTIFRACTIONAL **BIO-INDUCTION**

The fragmentation



THE FRAGMENTS WITH SPECIFIC MOLECULAR WEIGHT
ARE OBTAINED IN THE CONDITIONS OF **EXTREME pH**

THE FRAGMENTATION ENABLES TO OBTAIN DIFFERENT MOLECULAR FRACTIONS, EACH WITH A TARGETED ACTION. THE PROCESS IS CARRIED OUT BY IMPLEMENTING **HEAT** AND **ULTRASOUNDS** IN A SPECIAL WAY IN A HIGHLY ALKALINE ENVIRONMENT, STARTING FROM A FRACTION OF 1 M DALTON.



MULTIFRACTIONAL
BIO-INDUCTION



Combats the signs of time through a natural reduction of wrinkles

PREVENTS skin ageing through hydration and stimulation, starting as early as the age of 35

PROTECTS the skin from photoageing with treatments before and after exposure to the sun

IMPROVES the quality of the areas of skin with acne-caused scars and red stretch marks










INTERVENES on the brightness of the face

RESTORES tonus and firmness of the face and décolleté

FIRMS the skin

bioregen 

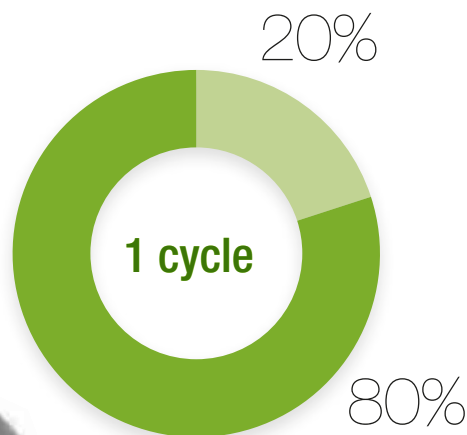
MAIN PROPERTIES

BIOREGEN: TECHNICAL SHEET								
								
COMPOSITION	DOSAGE	MOLECULAR WEIGHT	HA CONCENTRATION	PROPERTIES	BOX	CROSS-LINKING AGENT	ADMINISTRATION	RESULTS
HYALURONIC ACID SODIUM SALT IN BUFFERED PHYSIOLOGIC SOLUTION	1 ML	2 THOUSAND DALTON 100 THOUSAND DALTON 200 THOUSAND DALTON 500 THOUSAND DALTON 1 MILLION DALTON	1.6 16 MG/G OF HYALURONIC ACID SODIUM SALT IN 1ML	HYDRATION PROTECTION RE-STRUCTURING REGENERATION	3 PRE-FILLED SINGLE USE SYRINGES	NOT CROSS-LINKED	1 ML EVERY 2 WEEKS FOR 6 WEEKS AFTERWARDS 1 ML A MONTH	PREVENTS SKIN AGEING PROTECTS THE SKIN IMPROVES THE QUALITY OF THE SKIN



PATIENT SATISFACTION

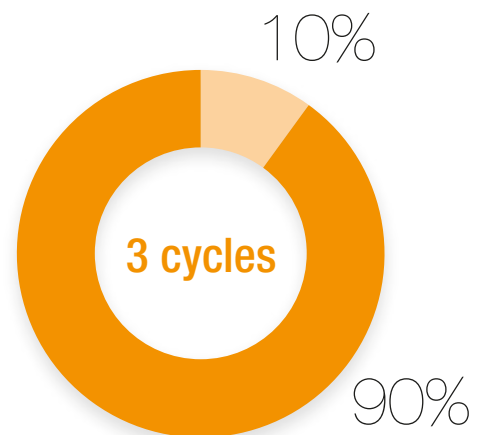
after 1 cycle with Bioregen
(3 syringes 1 ml)



80% VERY SATISFIED PATIENS
20% SATISFIED PATIENTS

PATIENT SATISFACTION

after 3 cycles with Bioregen
(9 syringes 1 ml)



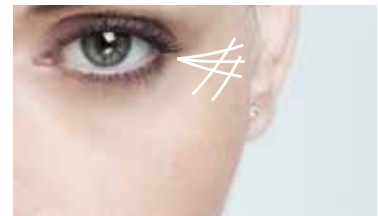
90% VERY SATISFIED PATIENS
10% SATISFIED PATIENTS

Degree of satisfaction after a treatment with the Bioregen on a sample of 50 patients between 35-65 years of age

MULTIFRACTIONAL BIO-INDUCTION INJECTION TECHNIQUES

Linear or micro-papular technique

BIOREGEN can be used with the linear as well as with the micro-papular technique. In the case of the periocular area it is recommended to mark single lines and to correct them always with the superficial linear technique. Small amounts of hyaluronic acid should be released while withdrawing the needle. In order to increase the aesthetic and bio-inductive effect, these injections need to be crossed with additional linear injections until reaching the zygomatic area.



SUPERFICIAL LINEAR TECHNIQUE

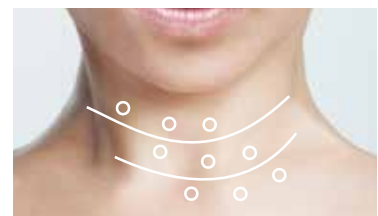
The perioral district requires superficial injections with the linear, or preferably, with a serial micro-papular technique along the visible lines, and two additional linear injections into the medium dermis, parallel to the rima oris.



MICRO-PAPULAR TECHNIQUE

The needle has to be inserted along the wrinkle and then gradually withdrawn releasing the product. After the injection, if necessary, the area treated should be gently massaged, in order to shape it. For the correction of fine wrinkles it is mostly recommended to inject the material into the papillary dermis.

Due to its ability to be widespread homogeneously, this product is especially indicated for treatments of the neck. The linear, or the serial micro-papular, techniques provide for a good correction of the blemishes. In order to increase the bio-inductive effect it is recommended to carry out additional linear injections, parallel to the previous ones, or micro-papular spread over the area.



LINEAR OR MICRO-PAPULAR TECHNIQUE

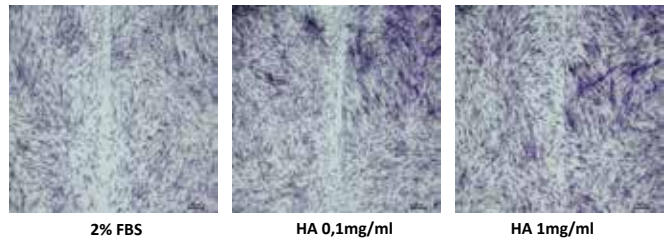
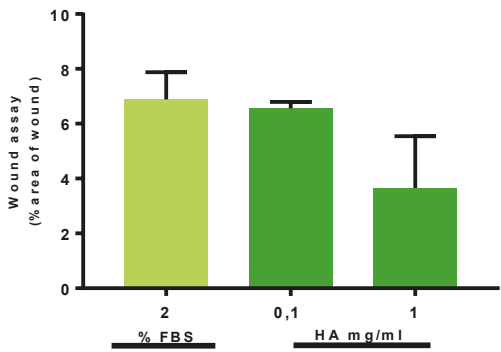
In order to completely correct the blemish, it is crucial to inject a sufficient amount of product. It is also important to avoid hyper-corrections. For a good result by deeper wrinkles, the implant should be injected into the deepest part of the dermis.

Bioregen can also be implemented for rejuvenation treatments on hands with micro-papular technique, followed by a gentle massage. In the case of red stretch marks the recommended technique consists of a series of micro-injections along the stretch-mark and a slight massage after that.



MICRO-PAPULAR TECHNIQUE

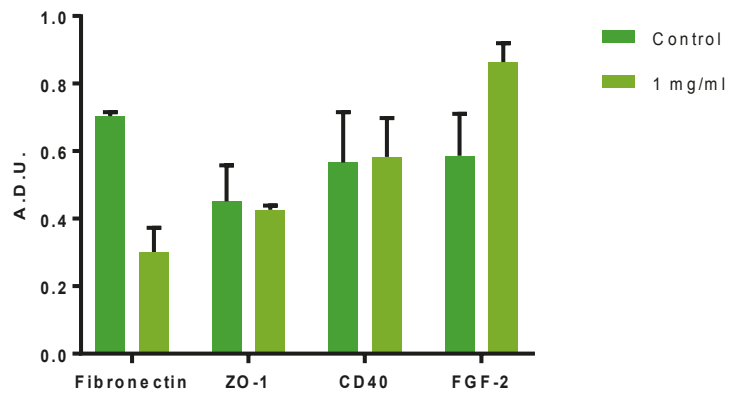
In vitro studies carried out in collaboration with the University of Siena show an efficient bio-inductive action on fibroblasts and on endothelial cells.



The cells were treated with Bioregen (in the presence of the antimitotic agent ARA-C) for 18 h. Results are expressed as percentage of wound area respect to time 0, measured by image analysis software (n=3 in triplicate). Fibroblasts try to cover the wound in the presence of Bioregen.

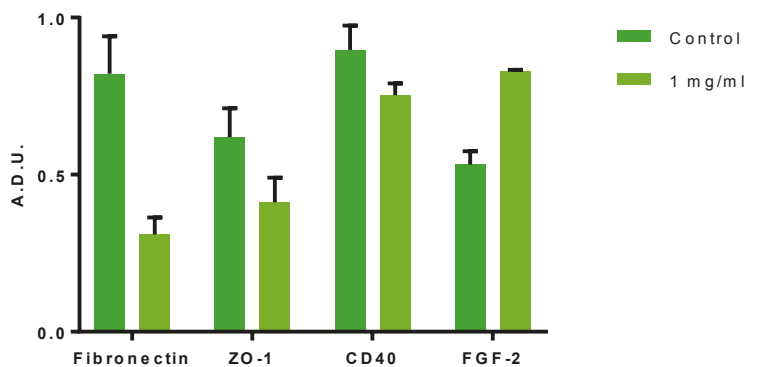
Evaluation of angiogenic and stromal markers in Fibroblasts

Cells at 90% of confluence were treated with Bioregen (1 mg/ml, 18 h). The graph is the result of n=3 experiments, and represents the arbitrary densitometric units (ADU) of the protein of interest respect to beta actin, a control protein. Fibronectin levels decrease while FGF-2 increase after Bioregen treatment of fibroblasts.



Evaluation of angiogenic and stromal markers in endothelial cells

Cells at 90% of confluence were treated with Bioregen (1 mg/ml, 18 h). The graph is the result of n=3 experiments, and represents the arbitrary densitometric units (ADU) of the protein of interest respect to beta actin, a control protein. The levels of fibronectin and ZO-1 are reduced, while FGF-2 levels are increased. The inflammatory marker CD40 does not change.



Markers Legend

Fibronectin: Extracellular matrix protein involved in cell adhesion. Its expression is reduced with cell migration.

ZO-1: Zonula occludens-1 ZO-1, also known as Tight junction protein-1, is a cell-cell junctional protein. Its expression decreases with cell migration and retraction, and hyperpermeability.

CD40: A marker of endothelial cell activation toward an inflammatory (monocyte adhesion marker) and angiogenic phenotype.

FGF-2: Fibroblast growth factor-2, angiogenic and prosurvival growth factor.

TREATMENTS IN THE MAIN AREAS OF THE **BODY**



RED STRETCH
MARKS



HANDS



CELLULITE





FOREHEAD

PERIOCCULAR
AREA

PERIORAL
AREA

CHEEKS

DÉCOLLETÉ

NECK

TREATMENTS IN THE MAIN AREAS OF THE **FACE**

bioregen 

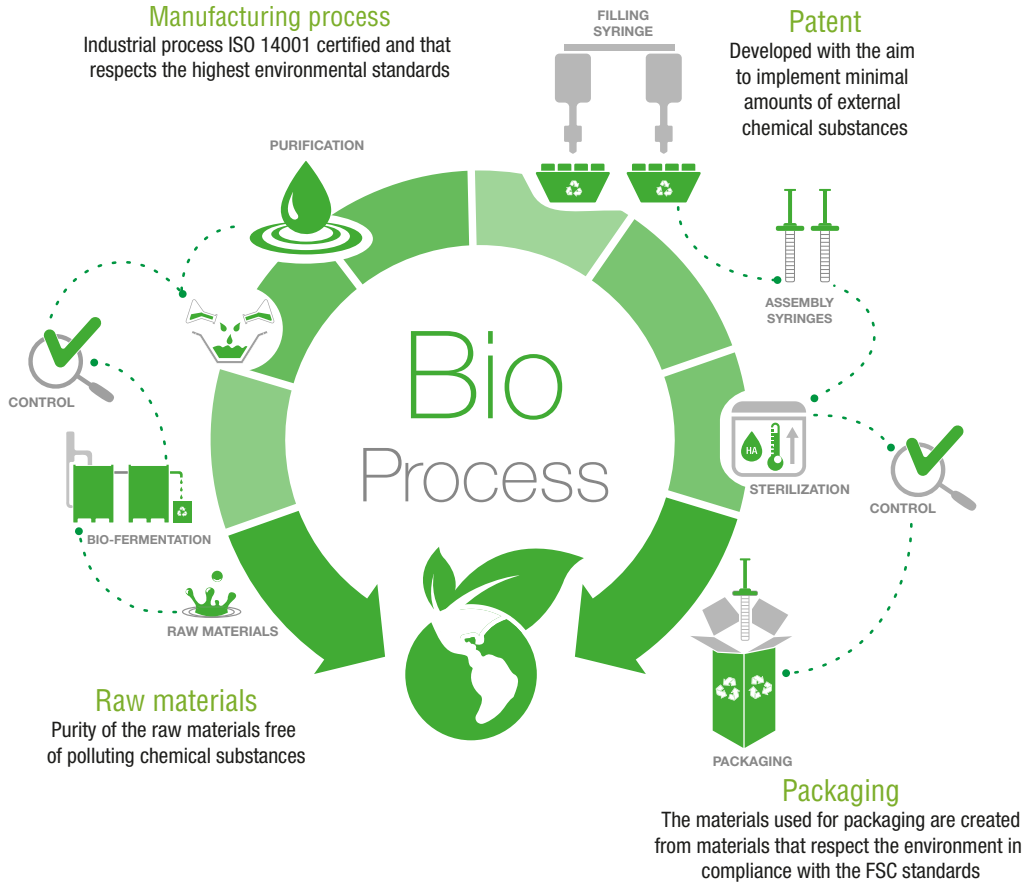
 **REGENYAL**
LABORATORIES

Bio Process

A SPECIAL PRODUCTION METHOD CONTROLLED AND CERTIFIED



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Green Injections

GREEN INJECTIONS is an international standard for injectables that applies to the safety of the product, to eco-friendliness of the manufacturing process and to the techniques aimed at obtaining natural results and maintaining natural beauty over the years. GREEN INJECTIONS are:

GREEN PRODUCT - Products of the highest quality manufactured from the purest Hyaluronic Acid with minimal presence of external chemical substances

GREEN TECHNOLOGIES - Innovative products made in Italy, in compliance with the strictest rules on the subject of environment: limited waste, energy saving, water purification, recycling, use of machinery at low energy consumption (ISO 14001 certified)

GREEN TECHNIQUES - Techniques for injections with needles or cannulae, worked out by highly qualified physicians. These techniques offer efficient and safe treatments, reducing to the minimum the risks of complications in the "difficult areas".

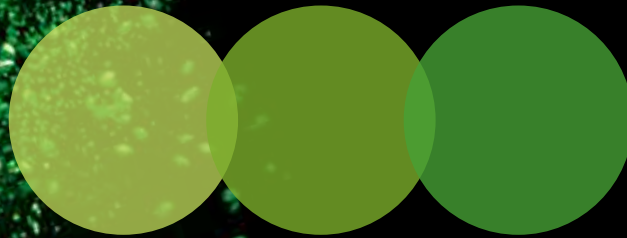
GREEN RESULTS - Visual "Ecologicity" of the correction that enables to obtain natural results.



BIO-INDUCTION
FACE & BODY



bioregen



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Certified
Quality
System

