

*Take care of your body, it is the
only place you have to live in.*



*We are experts in
intelligent biomedical
systems, customized to
each client thanks to our
patents on nanohydrogels
and controlled release.*



Biomedical engineering company dedicated to research, development and manufacturing of biomedical devices and innovative medications with high added value.

As a complete business group, one of our units specializes in applications of topical use - **Unikare Bioscience.**

Cooperative of Scientists

We are knowledge generators. A cooperative of scientists that is positioned as **one of the global referents in the field of nanohydrogels and controlled release.**



R&D Factory

We turn our clients' idea into creative and unique products. We apply innovative technologies to develop and manufacture personalized products with high added value, and the best guarantees.

We have a 13485 quality system and an AEMPS (Spanish Agency of Medicines and Medical Devices) license as a manufacturer of medical devices.



Personalized

We adapt to each project and client as an extension of its own structure and as an **external R&D unit.**

Thanks to our extensive experience in various sectors, we understand the **needs of each customer and we adjust to** the reality of **your project** and market, providing custom development.



**Turnkey
Project**



**360°
Partner**



**Injection of
added value**



**Made in Europe
(The Basque Country)**

360° Partner

**Ability to assume
all phases of the project.**

In **i+Med** we offer an agile, complete, and customized service that helps to shorten time to market.

We offer our clients the experience and know-how of our research team in order to respond to your clients' day-to-day technological challenges.

**We minimize the
time to market**



**We accelerate the
Market release**

72

**Investigation
projects**

4

**Technological
patents**

21

**Researchers
in the team**

10

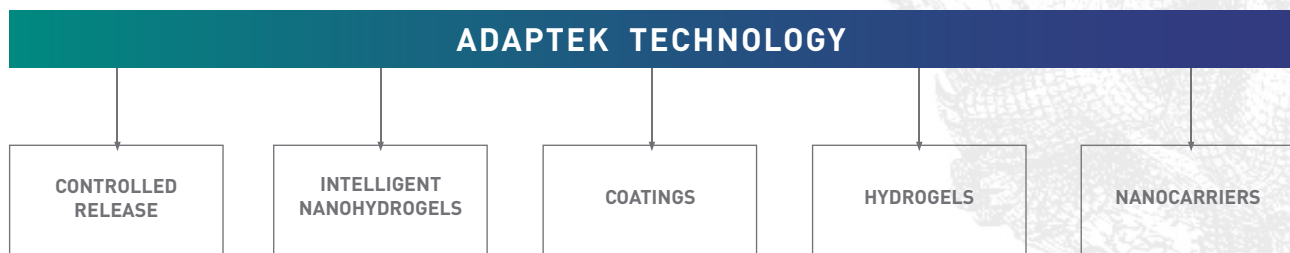
**National and international
awards**

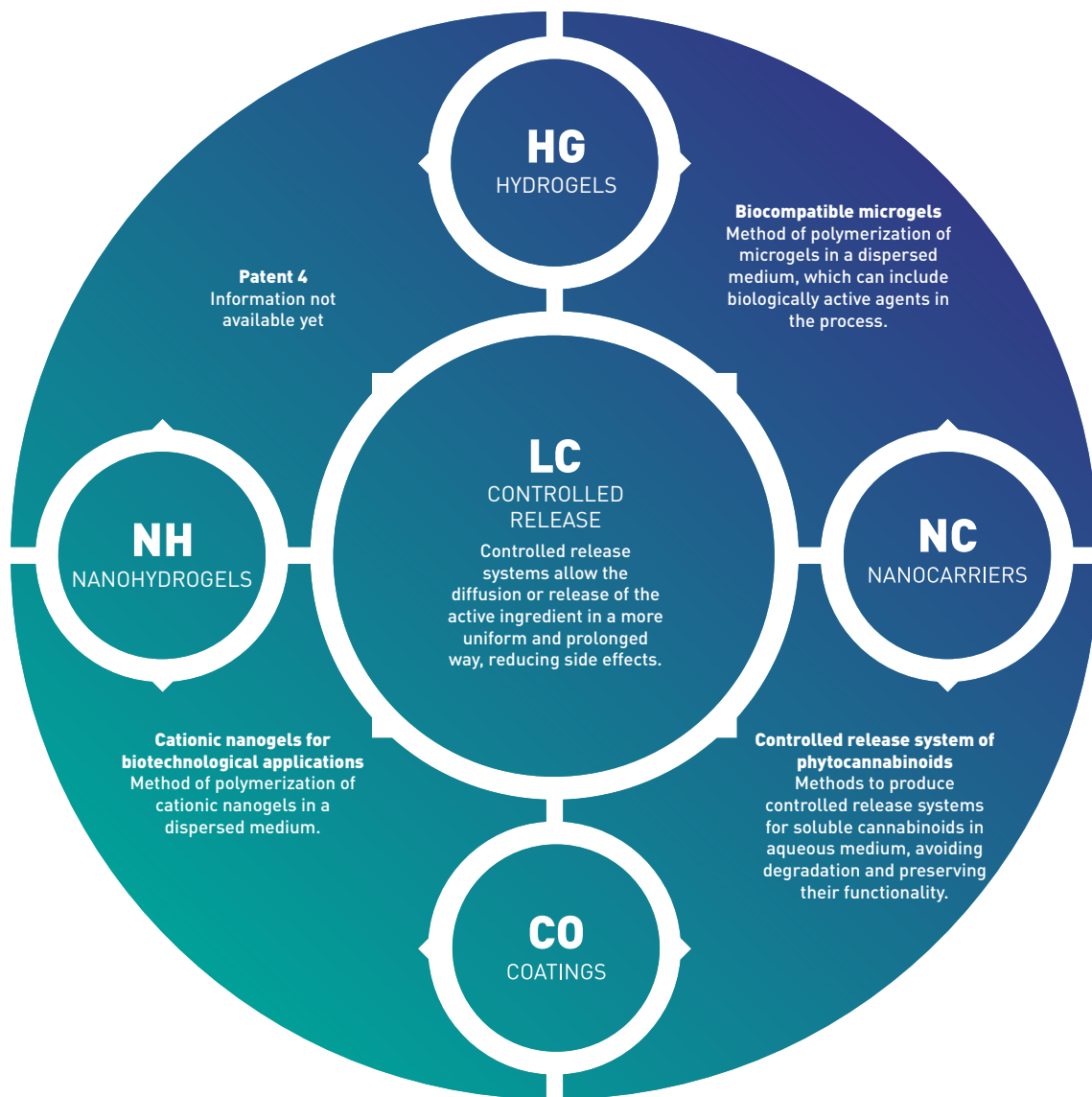
A D A P T E K



T E C H N O L O G Y

As a result of years of research, experience, knowledge generated around the field of nanohydrogels in particular, and controlled release in general, **i+Med** decides to create **Adaptek Technology**. It is a cross-cutting technology that allows the generation of biomedical and pharmaceutical solutions with high added value customized for each client.





Adaptek Technology

CHARACTERISTICS OF ADAPTEK TECHNOLOGY

VERSATILE AND ADAPTABLE FORMULATION

Depending on the needs and the therapeutic objective

INTELLIGENT RELEASE SYSTEMS

Stable, effective and "programmable" in time and in the therapeutic target with response to stimulus.

ENCAPSULATION

With a minimum index of toxicity and a maximum therapeutic performance.

CAPACITY TO ENCAPSULATE

Molecules of different sizes and characteristics. Different substances in the same particle.

SYNTHETIC METHODOLOGIES INDUSTRIALLY REPRODUCIBLE

Control of sizes, polydispersities and biodegradation.

SCALABLE MODERATE SYNTHESIS CONDITIONS

Suitable for in situ encapsulation of bioactive molecules.

BENEFITS FOR THE CLIENT

AGILE AND EFFICIENT

Time to market reduction and cost saving production for industrial scaling.

R&D INJECTION

We maximize the value, efficacy and performance of active ingredients.

INCREASE THE SECURITY OF YOUR PRODUCTS

We minimize possible side effects.

DIFFERENTIATED, EFFECTIVE AND INNOVATIVE PRODUCT

Contribution of new value to assets and increase of the unit profit margin.

VRIO TECHNOLOGY

Competitive advantage in the market.

COMPLETE SOLUTION

Adapted to your business' specific needs.

OUR PATENTS

BIOCOMPATIBLE MICROGELS AND THEIR APPLICATIONS

WO 2008/145612 A1

CATIONIC NANOGELS FOR BIOTECHNOLOGICAL APPLICATIONS

WO 2011/113989 A1

CONTROLLED RELEASE SYSTEM OF SOLUBLE PHYTOCANNABINOID FORMULATIONS IN AQUEOUS MEDIA.

PATENT REQUEST
EP20382072.5

PATENT 4

IN PROCESS OF
PATENT REQUEST

Controlled release

Controlled release systems allow the diffusion and release of the active molecule in a uniform and prolonged way, decreasing the side effects.

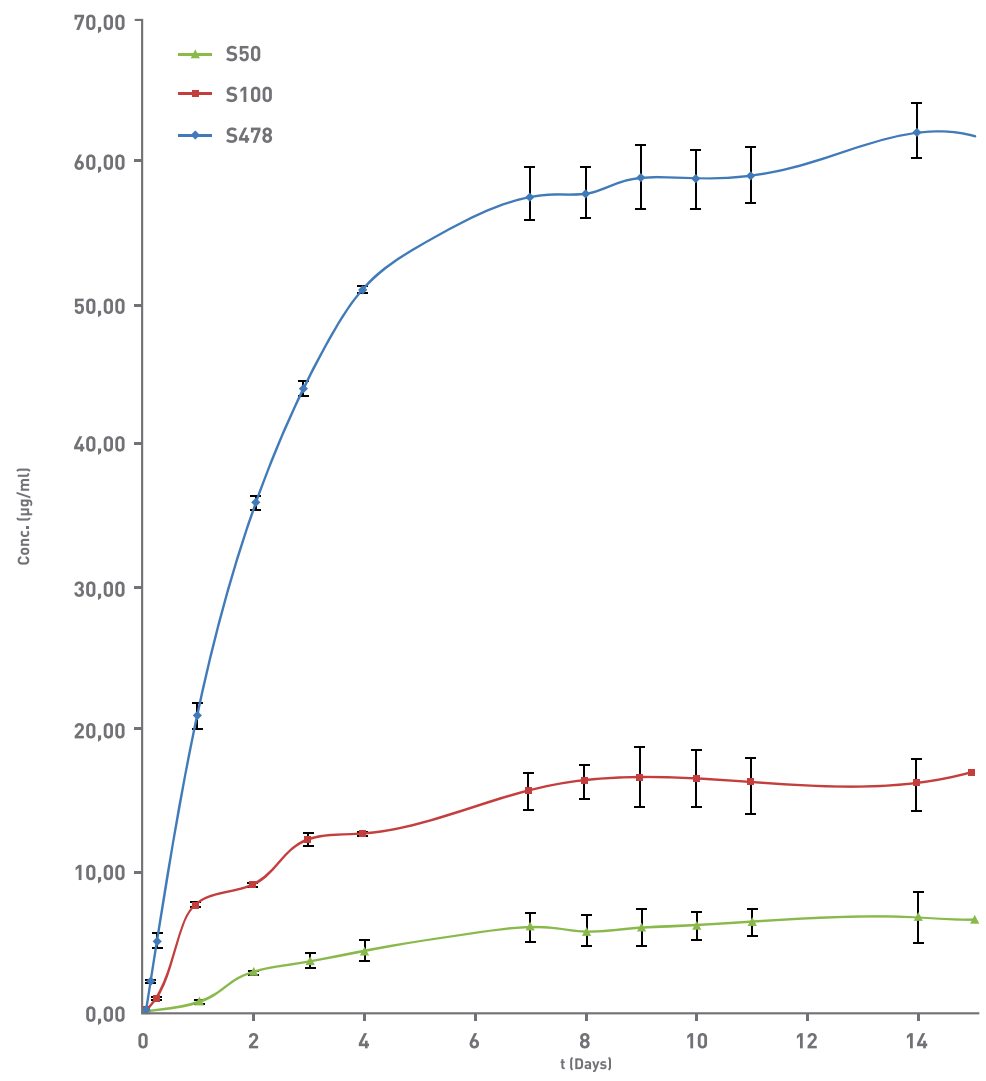
These systems extend the therapeutic effect and diminish the concentration peaks characteristic of conventional methods, providing a better pharmacokinetic profile.

Economic and pharmacological benefits:

- + Increase in PI extends the industrial/intellectual protection of the asset.
- + Protection of sensitive substances: oxidation, biodegradation, pH, etc.
- + Minimizes toxicity associated with the drug itself.
- + Improves solubility of hydrophobic substances, in aqueous media (oral applications) or hydrophilic in lipid media (topical applications).

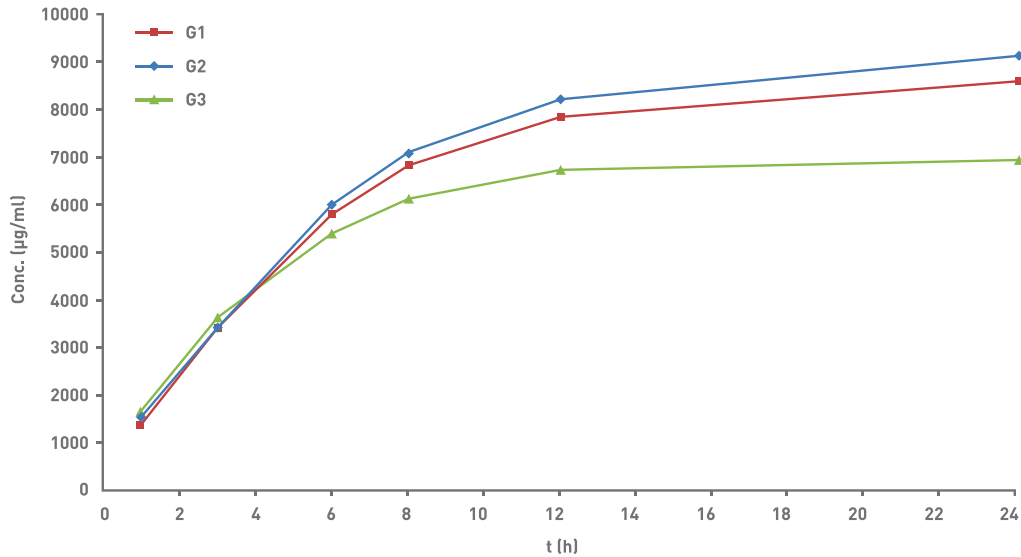


In vitro release trials simulating physiological conditions of the ear.



Profiles release after 15 days of otic active ingredient from hydrogel.

In vitro ectoine release trials mimicking ocular physiological conditions from ophthalmological gout.



Three formulation profiles release over 24-hours period.

Intelligent Nanohydrogels

We have established a technology for the creation and development of **customized Nanohydrogels for each client**, capable of encapsulating both hydrophilic and lipophilic substances.

Robust, precise, and reproducible

manufacturing process in water.

Patented process.

They can be functionalized with active groups (chemical groups, peptides, guide molecules, etc.) to interact more effectively with their therapeutic target.





We offer our technology and experience in molecule vehiculization to other organizations in order to find solutions for the development of new products that achieve specific technological requirements.

Coatings

i+Med develops coatings that can perform a sustained release of active substances.

These coatings can be applied to a broad variety of biomedical implant devices.

Typical applications include coronary stents, catheters, and other vascular devices, prostheses, dental implants, etc.

Customizable features: biocompatible, biodegradable on demand, homogeneous, customizable thickness, controlled release in space & time.

Our coatings provide:

- + Lower implant rejection rate.
- + Reduction of the postoperative phase.
- + Promotes tissue regeneration and implant integration
- + Maintenance of the optimal environment around the implant





We are experts in creating biocompatible coatings with the ability to improve surface properties and bio integration of our client's preferred material.

Hydrogels

Hydrogels are 3D polymeric networks, consisting of crosslinked polymers that can swell but do not dissolve in water.

This structure allows effective immobilization and release of active substances, biomolecules, or cells. The release rate can be tuned to specific therapeutic applications by adjusting the molecular structure of the polymers used.

- + **Injections:** Liquid materials that are capable of solidifying or jellifying after being injected in the injection site, or gels that have the proper rheological properties to be applied with a syringe of different sizes.
- + **Topical use:** Flexible hydrogels, with adhesive properties, able to adapt to different geometries and volumes, and to maintain the hydration.

i+Med uses biocompatible and biodegradable polymers, sterilizable, with scalable processes and under GMP manufacture.



Nanocarriers

Nanoparticle systems that convey active substances improving bioavailability.

Benefits:

- + Protection of the compound against degradation (greater stability).
- + Greater efficiency.
- + Decreased toxicity.
- + Masking of unwanted properties (taste, smell ...).
- + Increased solubility of insoluble compounds.
- + Controlled release.
- + Release directed at the target (Spatial and temporal).
- + Higher cost/effectiveness (lower doses and lower frequency of treatment application are required).
- + Better adherence of the patient to the treatments (fewer applications).

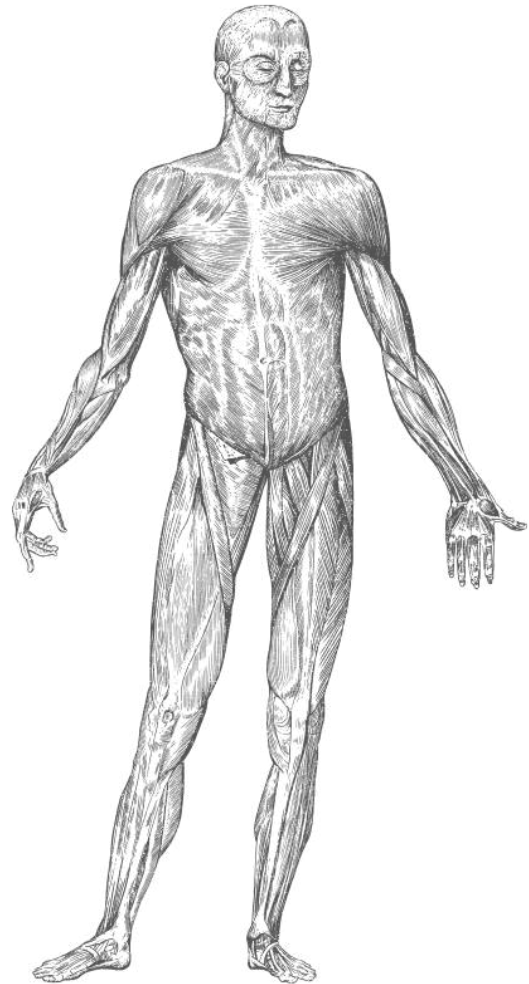




- + **Experience:** Our experience in compound encapsulation allows us to develop different types of nanocarriers to select the most suitable system according to the application.
- + **Custom R&D service:** **i+Med** offers customized nanoencapsulation services and other related services such as controlled release studies, surface modification and conjugation, among others.
- + **Area:** Administering drugs to hard-to-reach areas (joints, internal ear and ocular tissues, etc.)
- + **Any kind of substrate:** The nanocarrier systems can be incorporated into coatings, implants, injectable solutions, creams, etc.

Fields

- + Ophthalmology
- + Traumatology
- + Aesthetics
- + Urology
- + Gynaecology
- + Oncology
- + Otorhinolaryngology
- + Odontology
- + Cardiology
- + Gastrology
- + Dermatology
- + Veterinary
- + Sports medicine



R&D on demand

POSSIBILITIES OF COLLABORATION



Scaling

Scaling and process optimization services for later industrial production.



License

Comprehensive services to license products. Support throughout the process.



Commercialization

Possibility of distributing and marketing our products.



Collaboration

Willing to explore the implementation of our projects.



**“You propose the
challenge, we the solution”**

We offer the experience and
know-how of our team to
respond to each challenge.



AdaptMed

MEDICAL DEVICES by i+Med

At **i+Med** we are experts in the research and development of Hydrogels and Controlled release systems. Our know-how and highly qualified team have allowed us to develop a wide variety of medical devices, from surgery to OTC.

Products are 100% created in our facilities, passing through our different departments: from the development stage, through production, certification, and placing on the market.

The existing product lines will be replenished every year with new innovative solutions that meet the current market demands.



OpHLINE

OPHTHALMOLOGY

OpHLINE is a viscosurgical ophthalmic device (OVD) indicated as an adjunct during surgical procedures involving the anterior chamber of the eye, especially in cataract surgery, including the extraction of the lens and the insertion of intraocular lenses.

- + Lense removal.
- + IOL implantation.
- + High protection of the endothelium.
- + Total and safe extraction.
- + Excellent visibility of the operating field.
- + Sterilization by moist heat.

MODEL	OpHLINE 1,4%	OpHLINE 2%	OpHLINE 3%
VISCOSITY	15.000 - 20.000	40.000 - 60.000	180.000 - 220.000
MOLECULAR WEIGHT	High molecular weight		
COHESION	Dispersive	Cohesive-Dispersive	Viscoadaptive
COMPOSITION	Hyaluronic acid (non-animal origin)		
SIZE	2mL		



TrHLINE

TRAUMATOLOGY

TrHLINE is a linear hyaluronic acid injection, designed for intra-articular administration to restore the viscoelastic properties of synovial fluid in traumatic and degenerative lesions of the joints, manifested by pain syndrome and reduced mobility.

- + Lubricating effect.
 - + Shock absorption.
 - + Reduction of pain in the joint.
- + Improves mobility and quality of life.
 - + Increases the functionality of the joint.
 - + Easily reabsorbed by the body.

MODEL	TrHLINE 1%	TrHLINE 2%
VISCOSITY	3.000 - 6.000	40.000 - 60.000
MOLECULAR WEIGHT	High molecular weight	
OSMOLALITY	280-400mOsm/kg	
COMPOSITION	Hyaluronic acid (non-animal origin)	
SIZE	2mL	



TrHCROSS

TRAUMATOLOGY

TrHCROSS is the next generation of joint injections based on highly purified cross-linked hyaluronic acid. This is a single injection, designed to relieve joint pain in osteoarthritis by replacing natural joint fluid and replenishing lubricating and shock-absorbing functions.

- + Reduces the pain and increases the functionality of the joint.
- + Lubricating and shock-absortion effect.
- + Improves mobility and quality of life of the patient.

MODEL	TrHCROSS 2%
pH	7.2 – 7.6
OSMOLALITY	200-400 mOsm/kg
COMPOSITION	Cross-linked Hyaluronic acid (non-animal origin)
SIZE	4,4 mL



BtHLINE

AESTHETICS

BtHLINE is a biocompatible linear hyaluronic acid hydrogel intended as a dermatological treatment for aesthetic purposes. Administered by intradermal injection, the product is indicated to complement the extracellular matrix and intradermal tissue, restoring the anatomical structures of the skin, promoting its hydration, revitalization and toning.

- + Restores the structure of the skin.
- + Increases skin hydration.
- + Revitalizes the skin and increase its tone.

MODEL	BtHLINE 1,4%
VISCOSITY (cP)*	10.000 - 40.000
MOLECULAR WEIGHT	High molecular weight
COMPOSITION	Lineal Hyaluronic acid (non-animal origin)
ENDOTOXIN CONTENT	<0,5 EU/mL
SIZE	1 mL

* Viscosity measured at shear rate (SR) 1s at 25°C. Measured after sterilizing.



BtHCROSS

AESTHETICS

BtHCROSS is a biocompatible cross-linked hyaluronic acid hydrogel intended as a dermatological treatment for aesthetic purposes. It is administered by intradermal injection and designed to restore and correct facial volumes and fill wrinkles and folds.

- + Restores the loss of volume and facial contour.
- + Fills in the folds and wrinkles that appear with age.
- + Redefines the contour and gives fullness to the lips.

MODEL	BtHCROSS 1,5%	BtHCROSS 1,75%	BtHCROSS 2%
VISCOSITY (cP)*	20.000 - 30.000	30.000 - 40.000	50.000 - 60.000
MOLECULAR WEIGHT	High Molecular weight		
COMPOSITION	Cross-linked Hyaluronic acid (non-animal origin)		
ENDOTOXIN CONTENT	<0,5 EU/mL		
SIZE	1 mL		

* Viscosity measured at shear rate (SR) 1s at 25°C. Measured after sterilizing.



DayDrop

OPHTHALMOLOGY

DayDrop is an ophthalmic solution indicated to alleviate the ocular dryness and irritation produced by environmental factors (wind, dust, air conditioning, dry heat), prolonged use of screens or contact lenses and/or some pathologies that present the above mentioned symptoms.

- + Ectoin.
- + Hyaluronic acid.
- + Preservatives and phosphates free.
- + 12 hours of moisturization (In vitro test).
- + Relieves dryness and eye irritation.
- + Protects against external allergens.
- + Compatible with contact lenses.
- + Stabilizes the tear film.

Packaging

DayDrop is presented in unit-dose package of low density polyethylene containing 0.4 mL of sterile product. Each case contains 30 unit-dose packages.



Profilm *Herpes Labial*

TOPICAL USE

Profilm *Herpes Labial* is a liquid dressing for topical use, indicated to relieve the initial symptoms of cold sores. Its technology firms a protective and discreet physical barrier that adapts to the shape of the skin, reducing the risk of infection and the spread of the virus. Due to its composition, Profilm conditions the skin and helps to relieve the initial symptoms of the herpes outbreak (such as tingling, pain, itching or burning in the area).

- + Forms an invisible film that adapts to the shape of the skin.
- + Relieves the first symptoms of cold sores and reduces the duration of the outbreak.
- + Reduces the risk of infection and contagion of the virus.
- + Relieves itching and pain.
- + Contains propolis and tea tree extracts, stabilized vitamin C

Packaging

Profilm is presented in a 5 mL airless container so that the absence of air inside the container contributes to the preservation of the organoleptic, physico-chemical and microbiological properties.



Profilm *Aftas Bucales*

TOPICAL USE

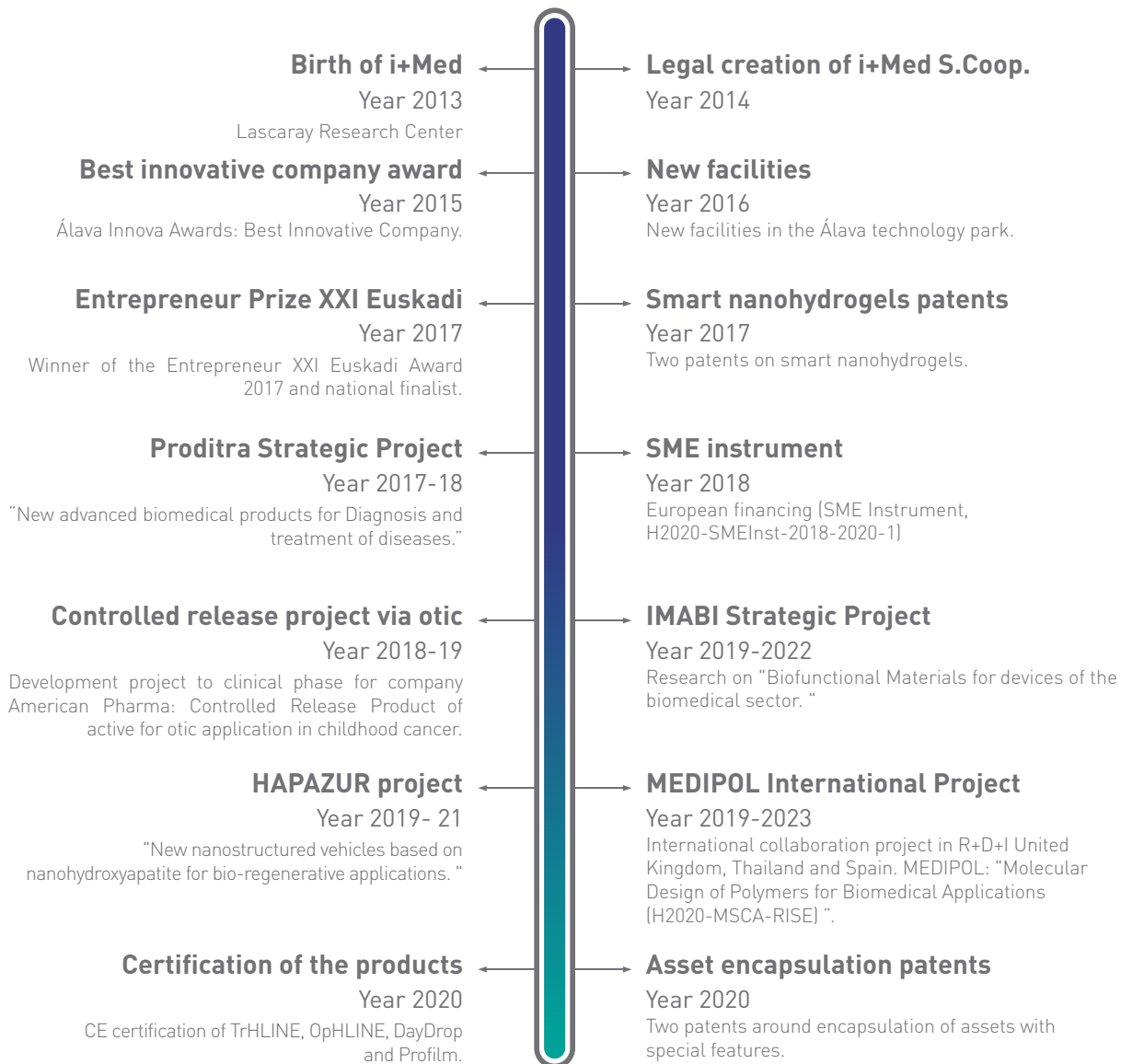
Profilm *Aftas Bucales* is a hydrogel with a polymeric base, supplemented with natural extracts of propolis and tea tree, and enriched with stabilized vitamin C. After its application, and thanks to its technology, a protective physical barrier is formed which adapts to the shape of the mucosa, preventing contact with food, saliva and other irritant or sensitizing elements or substances. Provides anti-inflammatory and analgesic effects, creates an environment that favors the healing of injuries.

- + Forms a protective film that remains on the site of application, promoting healing.
- + Relieves pain and protects / isolates against external agents.
- + Reduces the extension and duration of canker sores.
- + Contains propolis and tea tree extracts, stabilized vitamin C.

Packaging

Profilm *Aftas Bucales* is supplied in a 5 mL glass container with an applicator for a more convenient and precise application to damaged mucosal surfaces.

Project development



*We provide customized
innovative solutions in
the field of smart
nanohydrogels and
controlled release
adapted to the needs of
our customers.*



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