

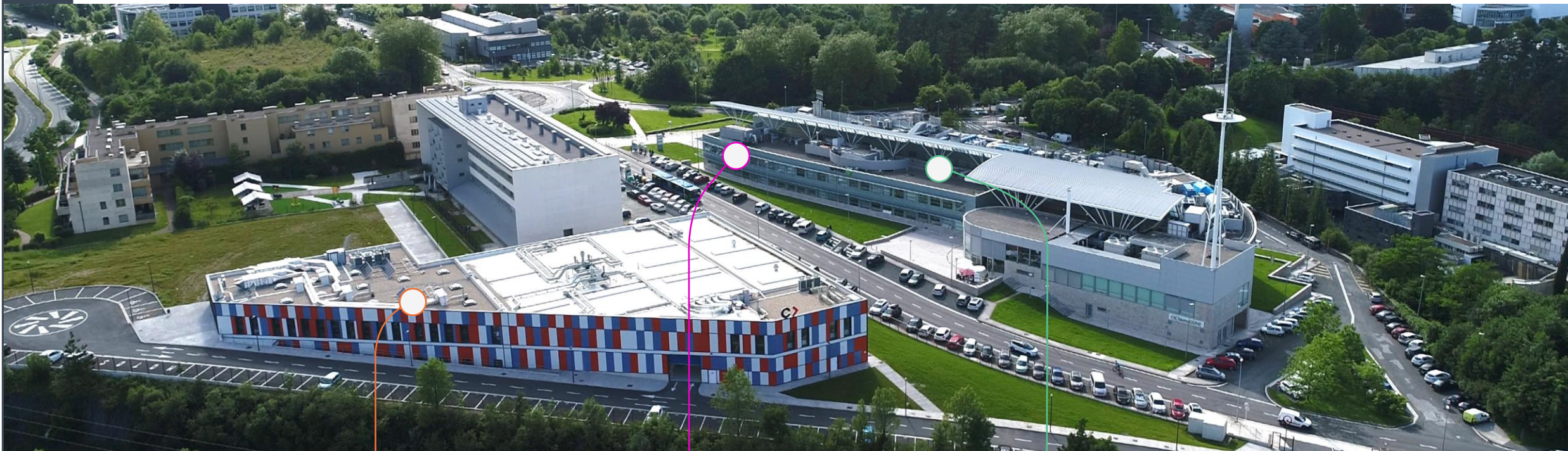


CAN YOU FORESEE A GREAT FUTURE?

cidetec >
a greater future today



complex



surface engineering



nanomedicine



energy storage



CIDETEC
nanomedicine

FOR A
BETTER
WORLD

cidetec >
nanomedicine

CIDETEC Nanomedicine is an applied research centre specialising in the development of innovative technologies & biomaterials.

+25

years

6

patent
families

3

spin offs

45%

doctors



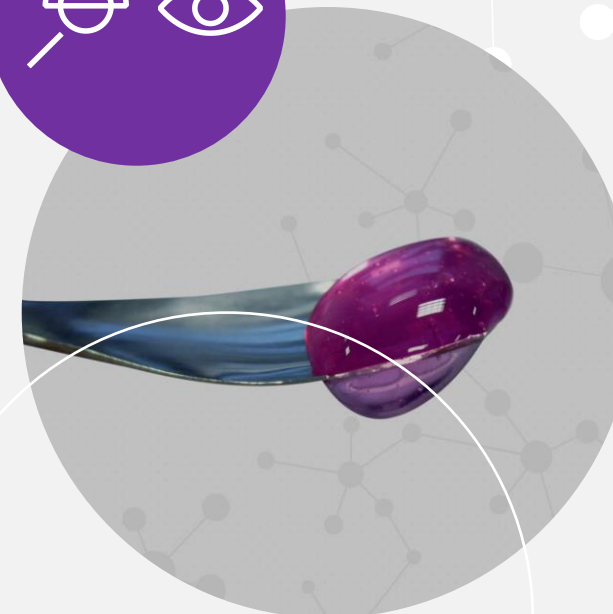
We provide solutions



Drug delivery
technologies for the
pharmaceutical sector



Encapsulation
technologies for the
cosmetic sector

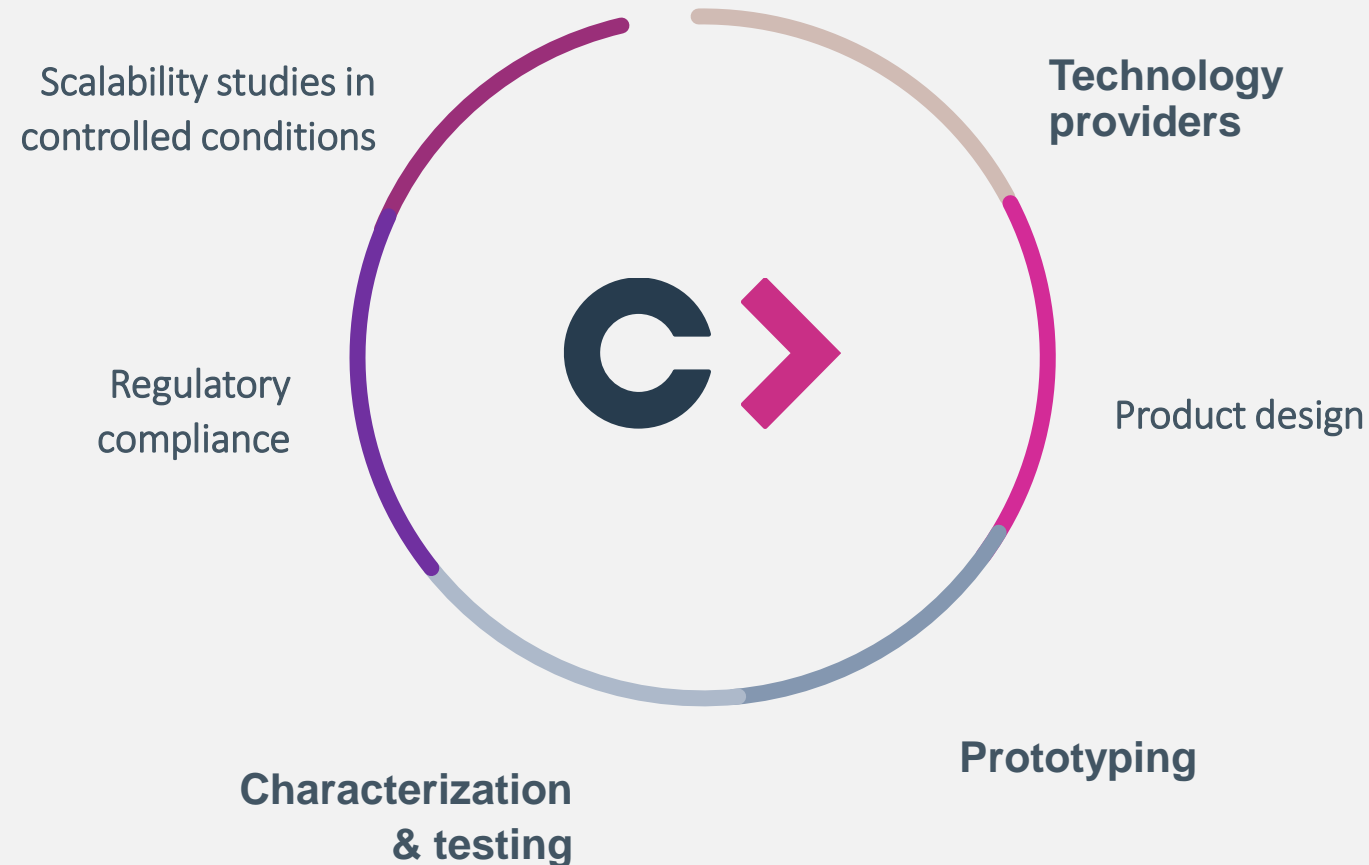


Biomaterials for medical
devices for use in
traumatology and
ophthalmology



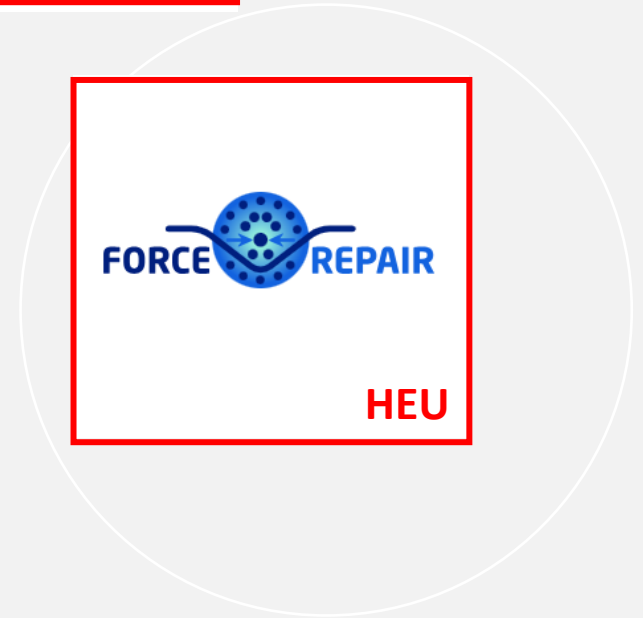
We are technology and R&D service providers in the innovation value chain

Specialist in the development of advanced materials for the biomedical and cosmetic sector





HEU active projects in 2023





Featured Projects

SINPAIN



HORIZON-HLTH-2021-TOOL-06-02

Next generation advanced therapies to treat highly prevalent and high burden diseases with unmet medical needs (RIA)

9 projects funded under this topic / **31** proposals submitted

Cost effective combined advanced therapy to treat knee osteoarthritis

SINPAIN project aims at developing siRNA advanced therapies pipeline products for the treatment of early (grade 0-1) and later stages (grade 3-4) of knee osteoarthritis (OA).

Duration

54 months

Budget

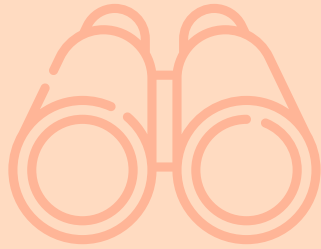
5.3 Mill €

Project partners

12

Funding

HEU



VISION

Our vision is to improve the quality of life for those affected by osteoarthritis (OA) and reduce the substantial costs associated with the disease.



MISSION

SINPAIN aims to develop a pipeline of safe, efficient, and cost-effective advanced siRNA therapies that will revolutionise knee OA treatment.



What is Osteoarthritis?

OA ranks among the most common joint disorders worldwide.



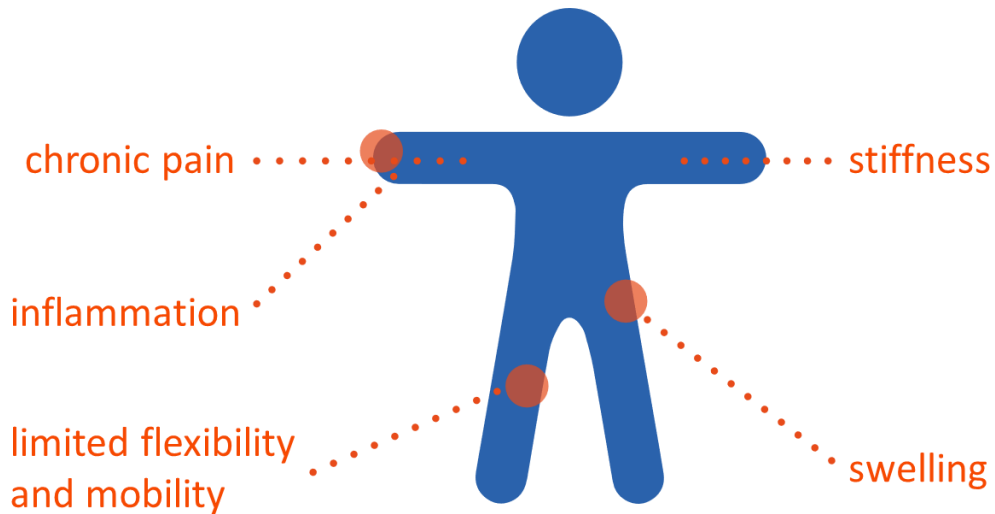
Long considered a 'wear and tear' condition of the elderly, it is now known that OA is a highly complex disease of the entire joint.

OA affects 7 % of the global population, of which 40 million live in Europe.

Symptoms

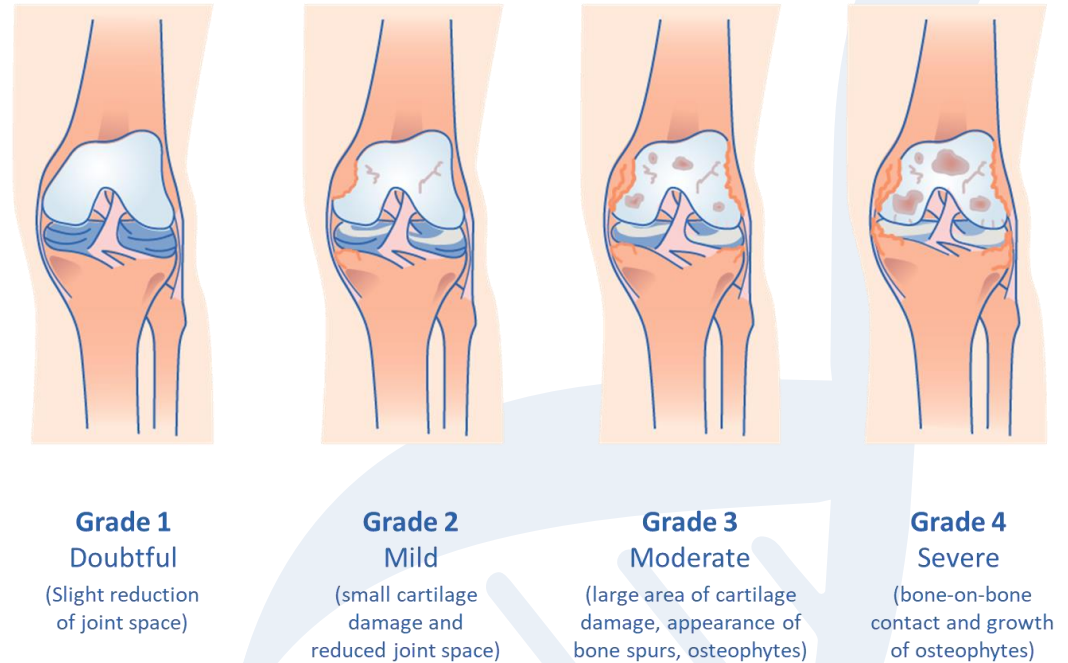
OA is a degenerative disease that can affect one or several joints, but most commonly the diarthrodial joints, namely the hip, hand, and knee.

Major symptoms include:



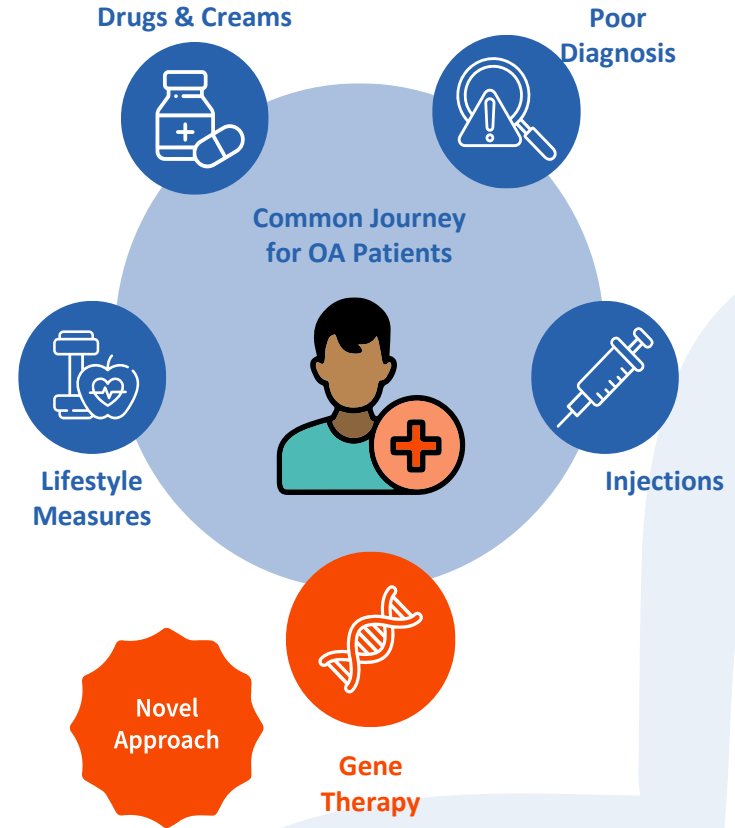
Progression of OA

Kellgren-Lawrence Classification of Knee Osteoarthritis

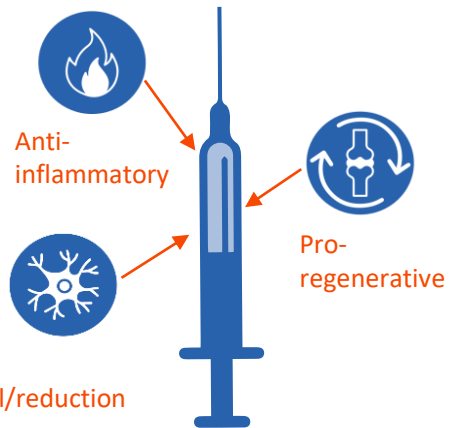


Current OA Treatment Options

Current treatment options are often costly and inefficient. In addition to a difficult diagnosis, all of these measures can only slow the progression of degenerative arthritis. Plus, taking medications often shows only limited success, and at the same time can lead to gastric complications and other potential adverse side effects.



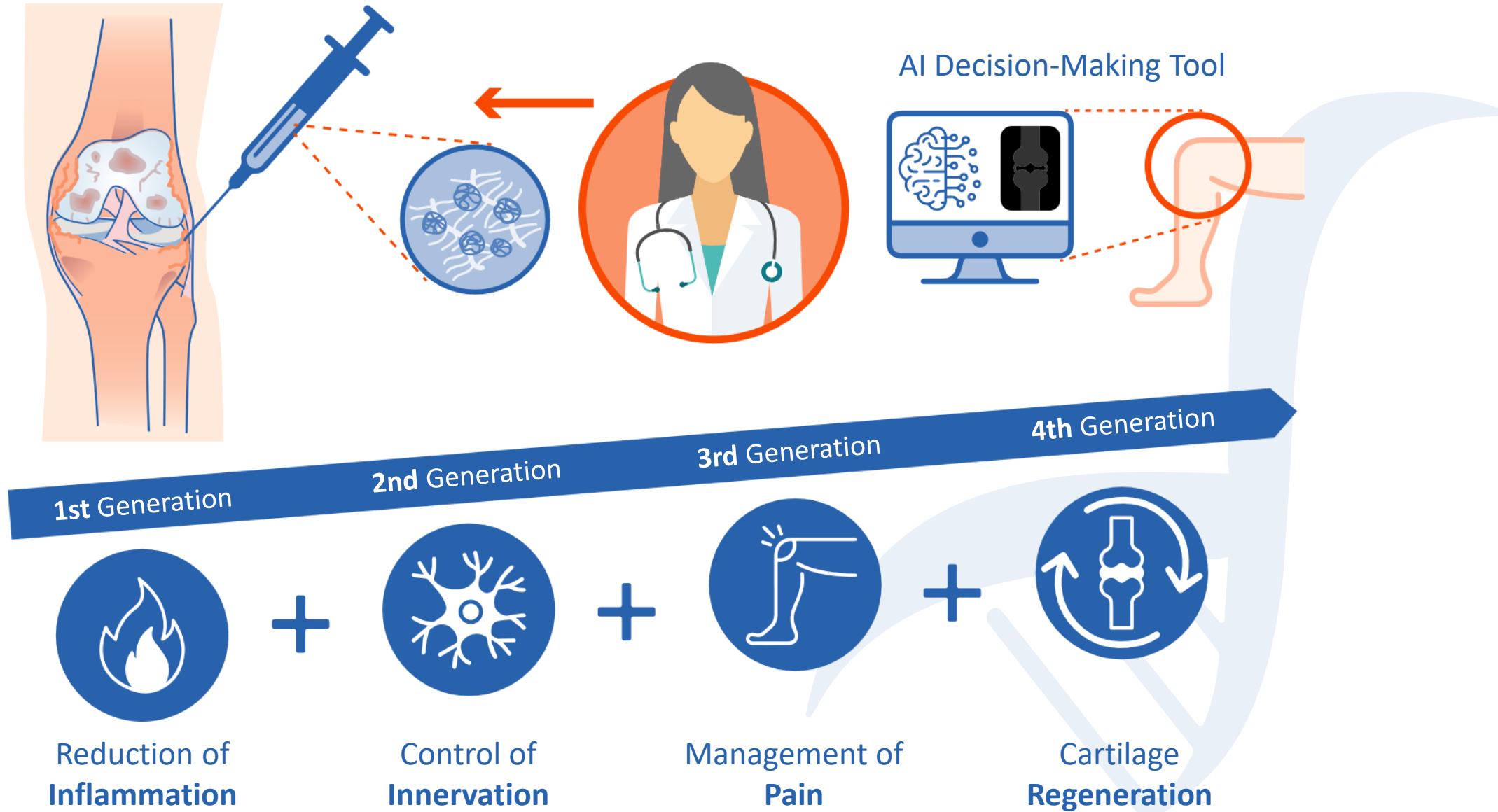
The SINPAIN Approach



As a delivery system, SINPAIN will use a material with dynamic properties to:

1. Mimic the rheological properties of natural synovial fluid to hydrate and protect cartilage
2. Restore the healthy conditions of the knee through a locally administered gene therapy
3. Incorporate pro-regenerative cues to promote healing of damaged cartilage.

The SINPAIN Research Pipeline





SINPAIN Consortium

HÁSKÓLINN Í REYKJAVÍK
REYKJAVÍK UNIVERSITY

UNIVERSITY OF LIVERPOOL

3S INSTITUTO DE INVESTIGAÇÃO E INOVAÇÃO EM SAÚDE
UNIVERSIDADE DO PORTO

cidetec nanomedicine

ASPHALION Knowledge from experience

Inserm Biotis
La science pour la santé
From science to health

OZBIOSCIENCES
The art of delivery systems

UNIVERSITÄT DES SAARLANDES

EURICE
EUROPEAN RESEARCH AND PROJECT OFFICE GMBH

AO
Research Institute Davos

UPO
UNIVERSITÀ DEL PIEMONTE ORIENTALE



Featured Projects

FORCE REPAIR



HORIZON-CL4-2022-RESILIENCE-01-13

Smart and multifunctional biomaterials for health innovations (RIA)

8 projects funded under this topic / 100 proposals submitted

Smart, multifunctional, and cost-effective 3D-printed wound dressing to help control bacterial infection and inflammation in chronic wounds.

The innovative FORCE REPAIR scaffold will stimulate healing, facilitate wound care management, and thus help reduce associated healthcare costs by decreasing significantly the daily frequency of nurse visits.

Duration

4 years

Budget

5.1 Mill €

Project partners

14

Funding

HEU



VISION

Our vision is to improve chronic wound treatment, reduce healthcare costs, and improve patients' overall quality of life



MISSION

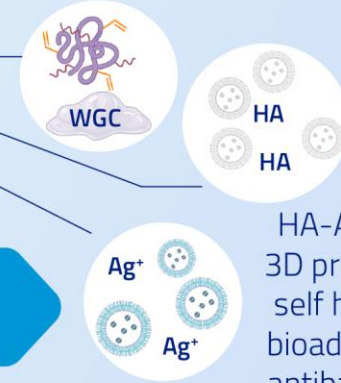
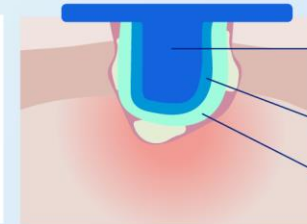
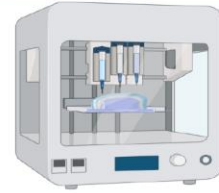
Our mission is to set out to advance chronic wound management by developing a smart, multifunctional, and cost-effective 3D-printed wound dressing to help control bacterial infection and inflammation

OBJECTIVES

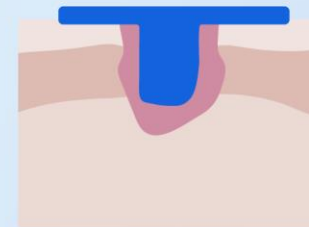
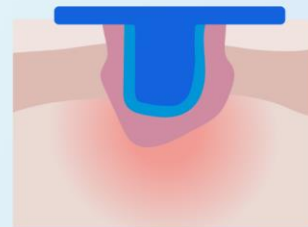
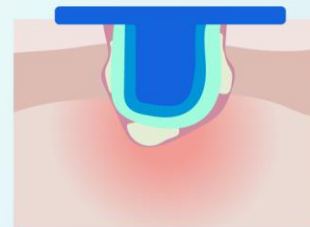
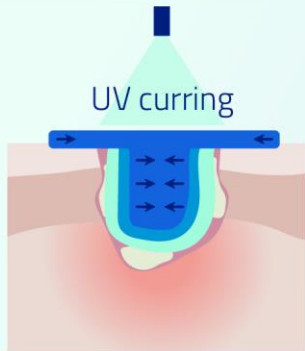




3D Trajectories & Gradients



HA-Ag-DH
3D printable,
self healing
bioadhesive,
antibacterial

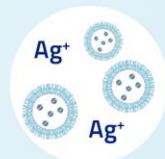


Relieving skin tension



Antibiotic effect

Ag⁺ + Mupirocin
nanocapsules



Inflammation control

Anti-inflammatory
nanoemulsions + HA



Tissue regeneration

Innervation
Laminin peptide

Vascularization
HA and GAGs from WGC



Wound healed

PROJECT PARTNERS	Country
FUNDACIÓN CIDETEC (CID)	ES
UNIVERSITA DEGLI STUDI DEL PIEMONTE ORIENTALE AMEDEO AVOGADRO (UPO)	IT
HISTOCELL (HCELL)	ES
EURICE EUROPEAN RESEARCH AND PROJECT OFFICE GMBH (EURICE)	DE
ASPHALION S.L. (ASPH)	ES
AKRIBES BIOMEDICAL GMBH (AKR)	AT
FUNDACIÓN IDONIAL (IDO)	ES
BETTHERA S.R.O (BETT)	CZ
FUNDACIÓN VICOMTECH (VICOM)	ES
EUROPEAN WOUND MANAGEMENT ASSOCIATION (EWMA)	DK
UNIVERSITA DEGLI STUDI DI PAVIA (UNIPV)	IT
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (CNRS)	FR
JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH (JOAN)	AT
INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE (INSERM)	FR



What to take into account?



Partnerships

Work Program

Understand what is asked

Type of action (TRLs)

Does my idea fit?

Core expertise required

Do you know already someone that may cover your needs?

Alignment with topic & EU Policies

Innovation vs market requirements

Cover Scopes & Expected Outcomes

Unique Selling Point. Why you?

Clear idea

Keep exploitation in mind.

Define partners responsibilities

Background & Foreground

Risk Analysis & Mitigation strategy

Good communication & coordination

Use risk analysis for complicated situations

Continuous communication with your officer



What have we learnt?



A diagonal section of the slide features a microscopic image of several cells, likely cancer cells, rendered in shades of purple and pink. The cells are irregular in shape and have a textured surface. The background is dark, making the cells stand out. This image is set against a white background that is bisected by a diagonal grey line.

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cidetec >
nanomedicine

a greater future today

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