



CENTAURO HEALTH



Organización **Sanitas** Internacional



Praxis
Pharmaceutical

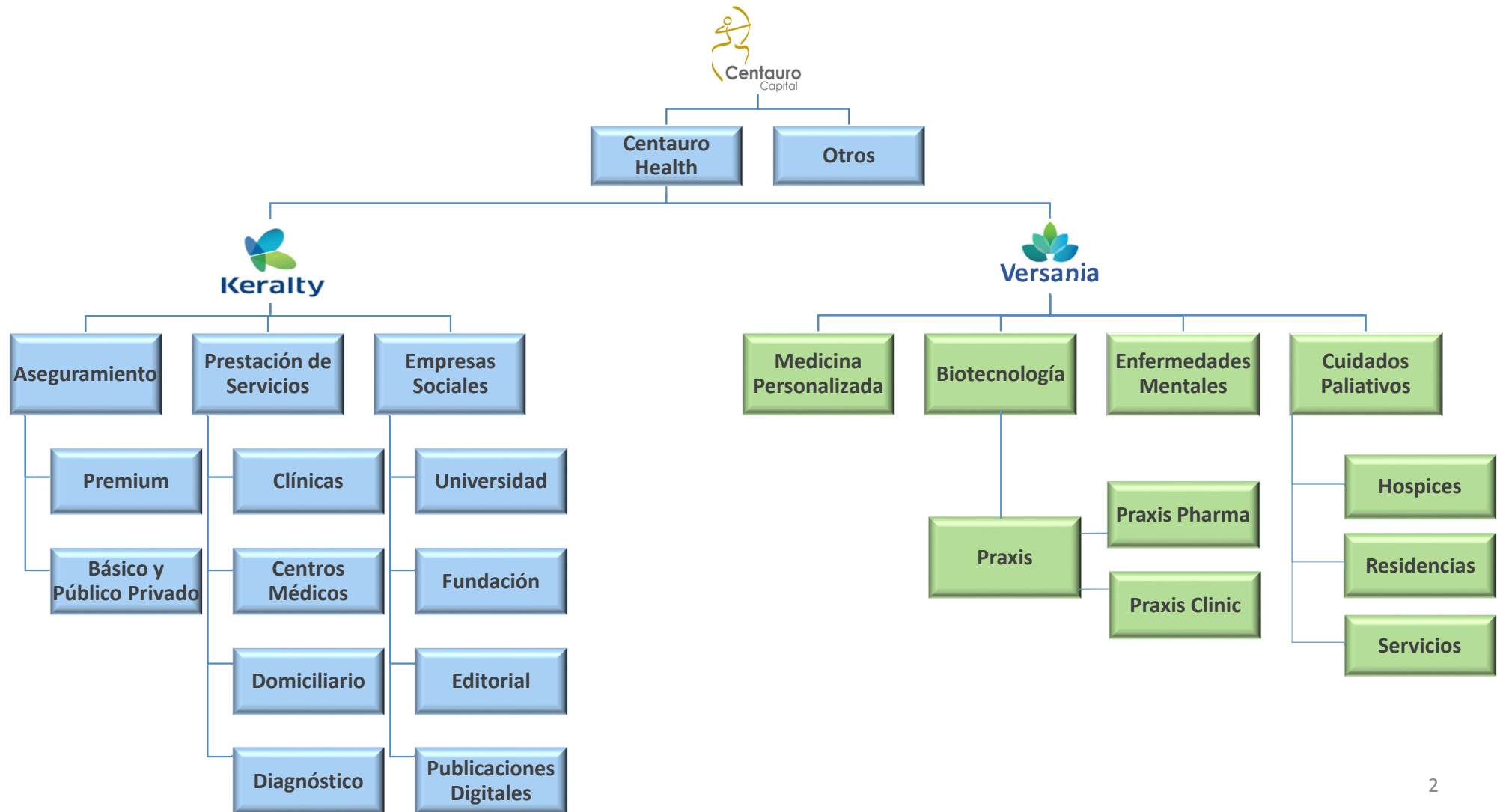


Praxis
Biopraxis Research



APLICACIONES DE LA NANOTECNOLOGÍA EN EL
DESARROLLO DE TERAPIAS AVANZADAS Y SU IMPULSO
DESDE LA RITA Y LA ETPN

Grupo Centauro





Created in Spain more than fifty years ago and established **in Colombia since 1980**, Sanitas Internacional constitutes a specialized group in **health services** that comprises an international network of hospitals, health centers and other health providers.

As well, the group includes educational and social institutions that complement our health services.

The mission of our business group is to **contribute to the permanent improvement of health, setting people as the center of attention.**

Along all their life, we provide individuals **integrated healthcare, improving and incrementing their wellness level under technologic innovation, social, organizational and integrated healthcare attention models** that serve people throughout their **whole lives**, at the same time that we create employment, wealth and life quality in those communities where we operate, **favoring their regional development.**



Organización Sanitas Internacional: Healthcare Services

OSI is a healthcare specialized group of companies that comprises several healthcare providers and a network of hospitals and health centers.

OSI also includes educational institutions and societal-oriented companies that complement our health services in the market.

OSI has its own network of third and fourth level hospitals and Comprehensive medical centers for outpatient care with:

- ✓ Dental clinics
- ✓ Diagnostics centers
- ✓ Ophthalmological surgery
- ✓ Diagnostic imaging units
- ✓ Network of clinical laboratories
- ✓ Optical stores and pharmacies



All streamlined for a comprehensive, personalized and multidisciplinary approach.

New Developments in other geographical areas and the establishment of R&D&i



OSI by the numbers

- ✓ 14.000 employees
- ✓ 3.5 M users
- ✓ 941 cities
- ✓ 7 Hospitals
- ✓ 60 *medical centers*
- ✓ 57 Laboratories
- ✓ 1 University (UNISANITAS)
- ✓ 2 Foundations

R&D&i in Europe



Focused on Health Sciences and aligned with our group's strategy, **UniSanitas University** is a private institution that educates annually more than 1.200 professionals in **Medicine, Nursing, Psychology and Administration**, with extensive programs of specialization, research and executive and continuous education in health.



Biopraxis Research AIE is focused on drug research and development with companies in the PRAXIS Group, and collaborations with other companies and R&D institutions worldwide.



ADVANCED THERAPIES IN CENTAURO GROUP HEALTH DIVISION

NOVEL THERAPIES

Regenerative Medicine and
Healing wounds with
Autologous bioengineered skin *

GF's for regenerative medicine

NanoEGF and Nanoantibiotics

HEBERPROT*

POLYHEAL *

DOPPLER

Nutraceutical therapeutic
solutions for Skin Health

ON GOING PROJECTS

Nanogrowskin

GLINGLIO

NOCANTHER

TheraGlio

NANOENZIMES

TAT CF

STOP SIDA

Therarmet

NANO-GF's

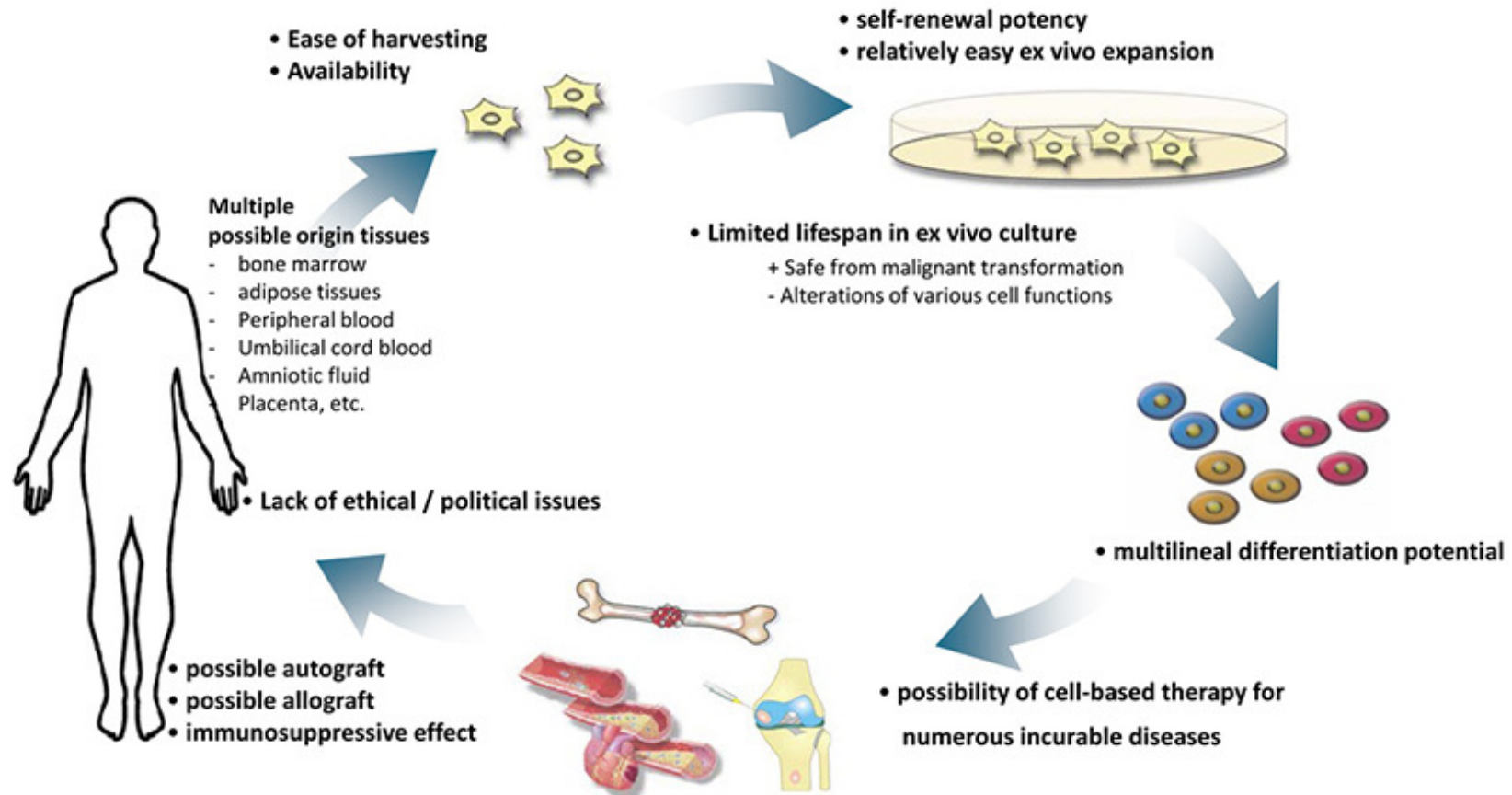
Nanoantibiotics

* Product in Market

NANO-GF's

Nanoantibiotics

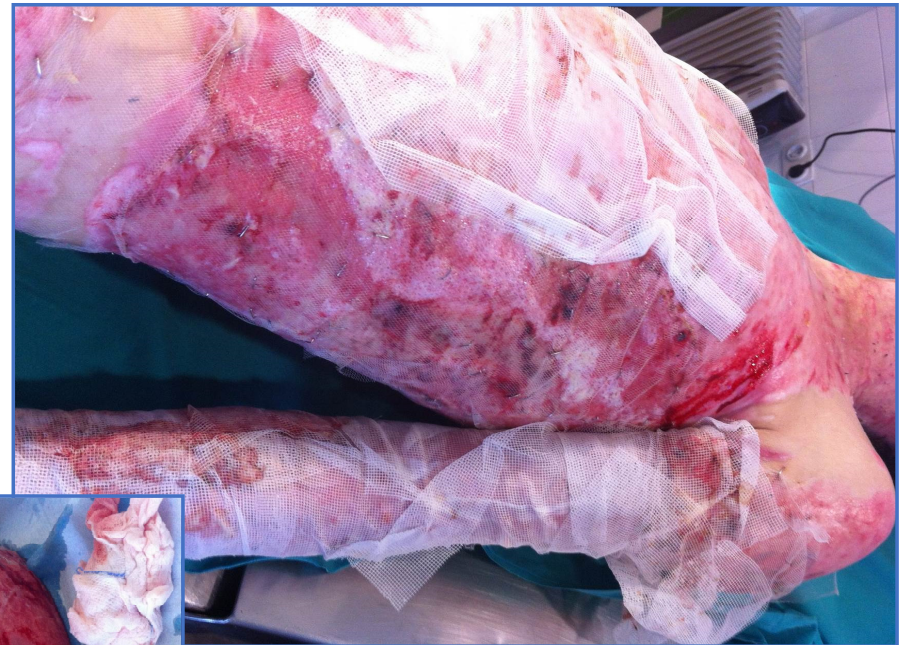




After Kim et al. Dev. Reprod. 2017

Chronic wounds are becoming a serious threat from an epidemiologic, economic and social point of view. Chronic wounds represent a complex and heterogeneous group and, although they can present different aetiology.

Major burns are severe chronic wounds. A high percentage of these patients have a complex treatment for its burnt wounds.





The main key to the successful treatment of serious burns is the prompt restoration of skin protective functions.

There are number of types of skin substitutes but, **bioengineered skin substitutes** have a few advantages

- Less pain
- Fewer complications
- High availability
- Negligible risk of cross-infection
- No requirement for graft harvesting and wound healing at the harvest site

A joint PPP to address chronic/burnt wounds

The need to solve

- Reproducibility of the native human skin.
- Immediate availability.
- Bacterial infections.

Search for alternatives

NanoGF's-Antib. product

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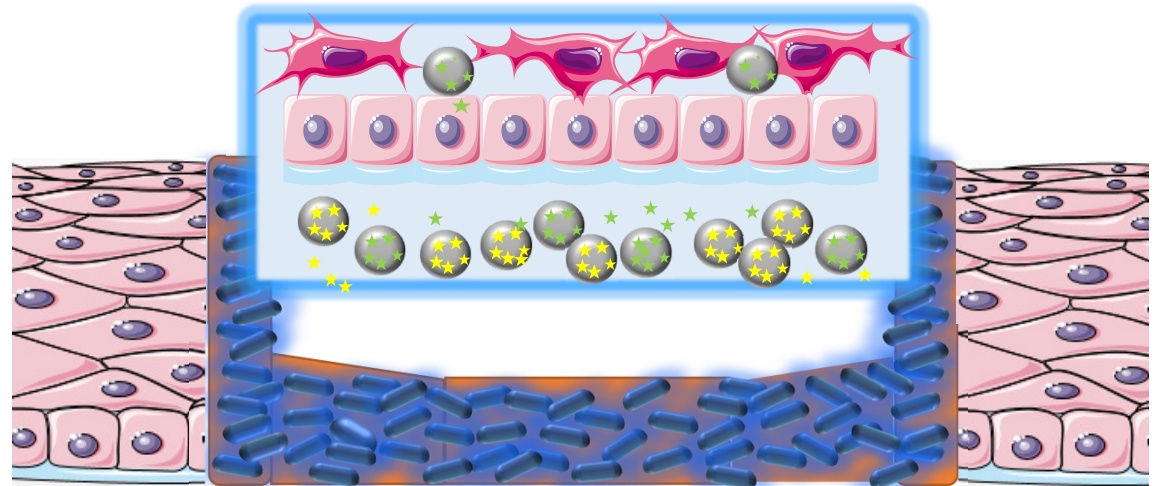
Bioengineered skin substitute



Antibiotics nanoparticles

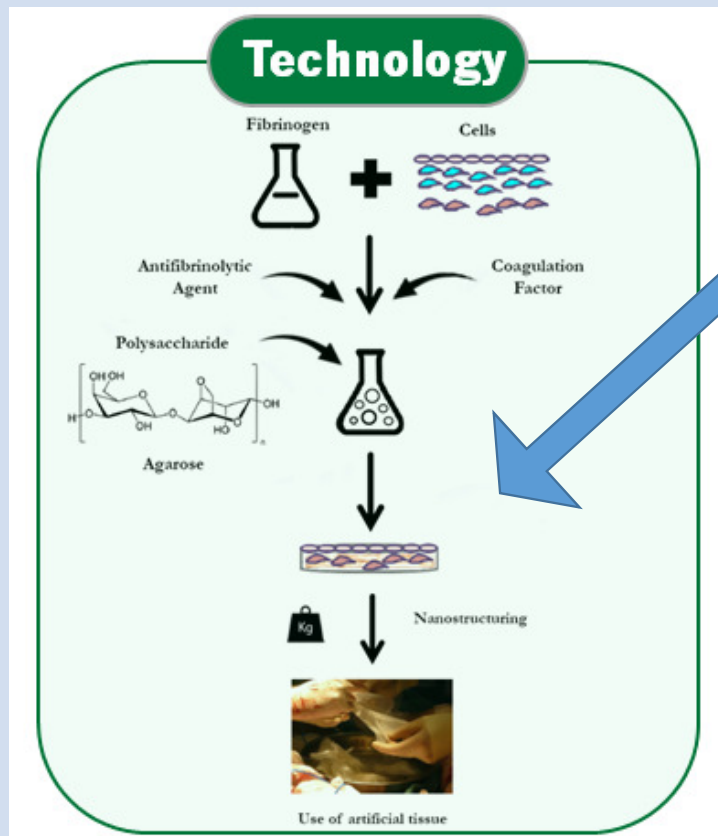


Growth factor nanoparticles



A faster easy handling, natural, physiological regenerative medicine for chronic/burnt wounds

REGENERATIVE MEDICINE



NANOTECHNOLOGY

ADVANTAGES

- Resistance
- Consistency
- Elasticity
- Adherence
- Handling
- Suturing

Nanostructuring process

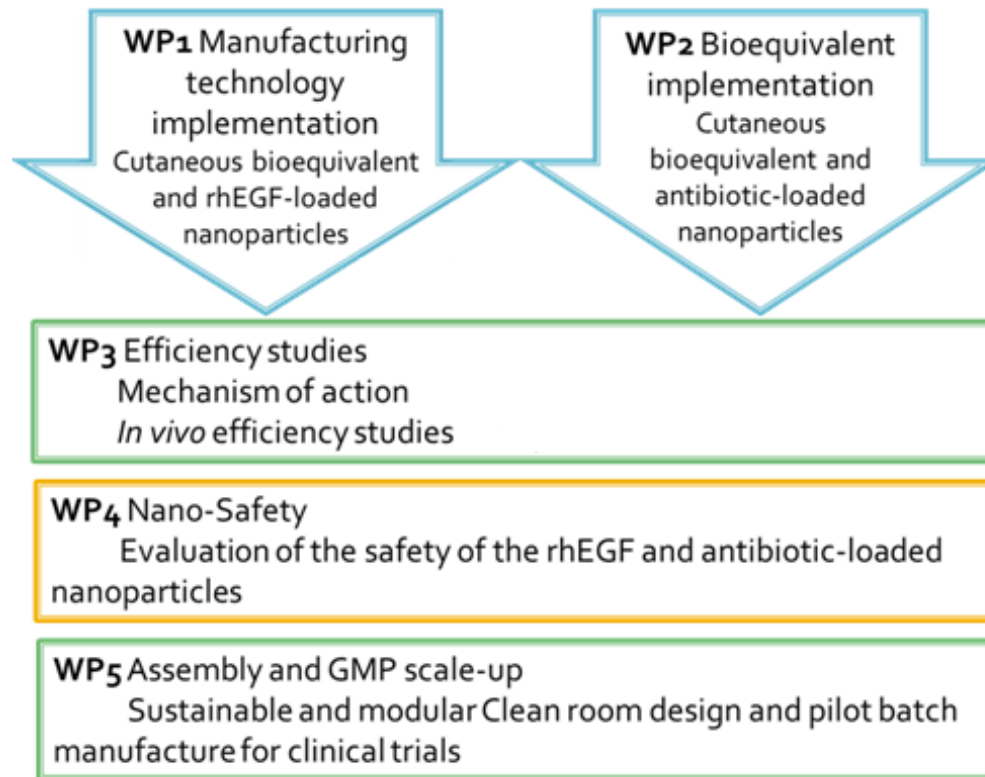
rhEGF NPs

rhEGF will be nano-encapsulated which will allow **protection from the many proteases in the wound bed** so that its residence time and half-life are prolonged.

antibiotic NPs

We aim at **enriching the artificial skin with antibiotic-loaded lipid NPs** for patients with an infection-associated injury to **tackle infection**.

Technical clues

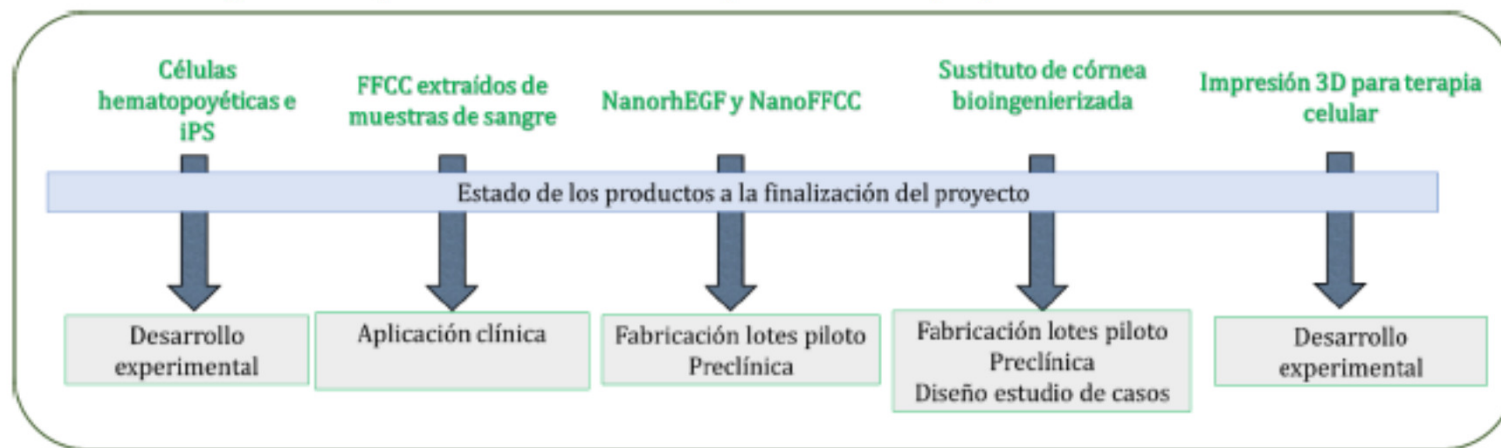


Collaborative clues



Horizon 2020 calls: SC1-BHC, NMP-21/22/23

Figura 2. Esquema del estado de los productos del proyecto a su finalización





Cooperación
Española
CONOCIMIENTO/ LA



EMBAJADA
DE ESPAÑA
EN GUATEMALA



aecid



Cooperación
Española
CONOCIMIENTO/ LA ANTIGUA



CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

Establecimiento de una red de intercambio del conocimiento en el área de la medicina regenerativa, la terapia génica y celular y su aplicación clínica (II)

Objetivos:

Analizar y discutir los últimos adelantos, tanto científicos como clínicos y regulatorios en la aplicación de las terapias avanzadas a diferentes áreas de la Medicina. Conocer las posibilidades de aplicación de estas técnicas a la práctica clínica en el tratamiento del cáncer, las enfermedades de la piel, enfermedades de la sangre, SIDA y enfermedades del sistema nervioso. Desarrollo de una red que permita el intercambio y actualización de conocimientos sobre los últimos avances en Biomédica.

Programa:

MÓDULO I: EDICIÓN GENÓMICA Y TERAPIA CELULAR

**MÓDULO II: COMERCIALIZACIÓN Y APLICACIÓN CLÍNICA DE TERAPIAS
AVANZADAS**

MÓDULO III: TERAPIA GÉNICA Y CELULAR DE LAS ENFERMEDADES HEREDITARIAS

MÓDULO IV: VIRUS ONCOLÍTICOS

MÓDULO V: INMUNOTERAPIA DEL CÁNCER

MÓDULO VI: MARCO REGULATORIO DE LAS TERAPIAS AVANZADAS

MÓDULO VII: TRANSFERENCIA DE RESULTADOS

RITA: Red Intereuroamericana de Terapias avanzadas

Establecimiento de una red de intercambio del conocimiento en el área de la Medicina Regenerativa, la Terapia Génica y Celular y su aplicación clínica II:

- Cartagena (Colombia), 21-24 de noviembre de 2016
- Antigua (Guatemala), 14-17 de noviembre de 2017

RITA: Red Intereuroamericana de Terapias avanzadas

ACCIONES CONSTITUCIÓN RITA

- **Articulación sencilla de la red a través de:**
 - Secretaría común rotativa: Mónica Castresana.....Nov-2017
 - Puesta en marcha de web conjunta de la red.....Marzo-2018
 - Aportación de un Fondo social reducido.....Enero-2018
- **Definición de, al menos 5 proyectos conjuntos entre socios de RITA.....**Marzo-2018
- **Inicio Ejecución de, al menos, 3 proyecto.....**Junio-2018
- **Buscar fondos para la próxima reunion.....**Mayo 2018
 - Cytel- ICEX
 - Comisión Europea
 - Autoridades Nacionales de apoyo a la I+D
- **Establecer un convenio con la ETPN.....**Junio-2018



Organización Sanitas Internacional is now **Keralty**.
This change is the visible step of a **transformation that gives us the opportunity to reach further**. An evolution that comes from the experience gained in more than 36 years in which we have created an **unique health care model** and a global network in expansion that connects **our commitment with the well-being** of people.

www.keralty.com
www.sanitas.me



**Health Institute
BOGOTA-COLOMBIA**





Reflections on a mission oriented approach for R&I

Horizon 2020 - Room for Improvement



Establish an **impact-focused, mission-oriented approach.**



The strategic challenges and objectives are **not always clearly translated in specific calls** and topics.



Low involvement of civil society (but improved over FP7). Need to **bring R&I closer to the public.**



Some organising principles – basics for "missions"

- EU added value
- Set a direction (e.g. EU Policy priorities, UN 2030 Agenda for Sustainable Development, Carbon Neutral Sweden 2045)
- Clear R&I focus
- Citizen priorities, final user relevance
- Transformative, leveraging large-scale investments by different actors (innovators, researchers, public authorities, citizens) across sectors, disciplines and countries
- Stimulate efforts and investments at national and regional levels



Elements for design & implementation

- **Strategic Agenda**
- **Budget**
- **Timeline by 2030, with milestones**
- **Flexibility**

Take home message

1. ETPN has proven that it delivers what it promised
2. ETPN's expertise in supporting start-ups and SMEs is fully recognised
3. ETPN is in the driver seat of NOBEL and ESTHER
4. ETPN and the nanomed community has to adapt to its new framework



FP9



an **impact-focused, mission-oriented approach**

THANK YOU VERY MACH