



# Presentation of the BLUEHUMAN Project

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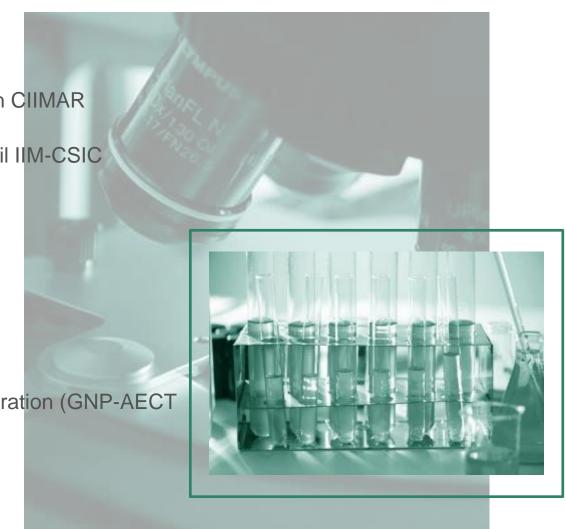
Coordinador del Área de Tecnología de los productos Pesqueros Centro Tecnológico del Mar - Fundación CETMAR



#### partnership



- University of Minho (Coordinator)
- Technological Center of the Sea CETMAR Foundation.
- Interdisciplinary Centre of Marine and Environmental Research CIIMAR
- Faculty of Sciences of the University of Porto, FCUP
- Marine Research Institute Spanish National Research Council IIM-CSIC
- Western Bretagne University UBO
- YSLAB
- University of Algarve UALG
- University of Vigo UVIGO
- Royal College of Surgeons in Ireland RCSI
- University of Madeira UMa
- JELLAGEN PTY LTD
- SURGACOLL Technologies Limited
- Galicia North Portugal European Grouping of Territorial Cooperation (GNP-AECT
- Galician Innovation Agency GAIN
- National Innovation Agency ANI
- State Research Agency AEI



#### Goals





To promote the valorization of marine resources from the Atlantic Area, as well as fisheries by-products, improving the industrial process and the development of certain stages of high added value products completely developed in the sectors of biomedicine and global well-being. All of that will be achieved using blue biotechnology as a tool and a partnership made up by companies and specialized research groups focused on innovation.

- To start structured and permanent collaborations between research centers and companies.
- To foster the use and exploitation of marine biological recourses from the European Atlantic coast.
- Develop a critical mass in the area, represented by a significant but disconnected number of research groups and companies.

#### **Innovation Areas and Lines**



#### Marine origin biomaterials for tissue engineering

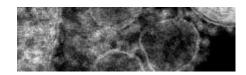
- Hydrogels based in jellyfish collagen for cartilage therapies
- Crosslinking of collagen assisted by transglutaminase
- Functionalization of biomaterials with delivery devices for cartilage regeneration
- Blends of marine origin collagen and chondroitin sulfate for encapsulation of chondrocytes and stem cells
- Blends of marine origin biopolymers as platforms for wound regeneration

#### **Medical devices**

- Scaffolds of shark collagen and shark calcium phosphates for bone regeneration
- Functional scaffolds based in collagen-based composites
- Trilayered scaffold based in marine origin materials for regeneration of osteochondral defects
- Dressings for skincare application, as wound protection
- Marine ceramics for bone tissue therapies

#### Marine Ingredients for cosmetics, well-being and healthcare products

- Extracts from marine resources with bone anabolic properties
- Extracts from marine resources with anti-oxidant, antimicrobial and/or anti-biofilm activities
- Extracts from marine resources with anti-obesity activity
- Nanocosmetics: particles for delivering collagen (gelatine) and hyaluronic acid hydrolysates from marine sources









### **Project Website**

http://bluehuman.cetmar.org



## Thanks for your attention!



bluehuman.cetmar.org