

# GELX: BIOCOMPOSITE

WOUND DRESSING COMPOSED OF  
A POROUS MATERIAL BASED ON  
SALMON COLLAGEN AND EXCIPIENTS.

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## MARKET

In 2016, the global wound dressings market was worth USD 6.31 billion, and it is expected to reach USD 8.46 Billion by 2021, growing at a CAGR of 6.0% from 2016 to 2021. The main growth driver is the technological advancements in wound dressings. In addition, prevalence of obesity-related diseases, such as diabetes, and increasing aging population are also contributing factors for the growth of this market.

## UNMET NEED

Epidermal tissue injuries are common in our daily lives and cause serious problems. Covering these injuries with bandages can help wound healing, but due to exudation, inadequate deposition of collagen delays the healing of the wound. This is the main problem in the wound care process. On the other hand, microbial infections are also recurrent. Microbes can grow instantaneously and form colonies at the site of the wound and penetrate the deeper layers of the tissue causing internal infections.



Universidad de

**los Andes**



**DIRECCIÓN  
DE INNOVACIÓN**

## SOLUTION

Researchers from Universidad de los Andes and Universidad Técnica Federico Santa María developed a device for the treatment of wounds by comprising a co-polymerized matrix with salmon and chitosan collagen. This provides support for cell and capillary growth and is biodegradable, therefore its designed for a one use. The biocomposite is for the treatment of the following types of wounds: surgical wounds, trauma wounds, second degree burns.

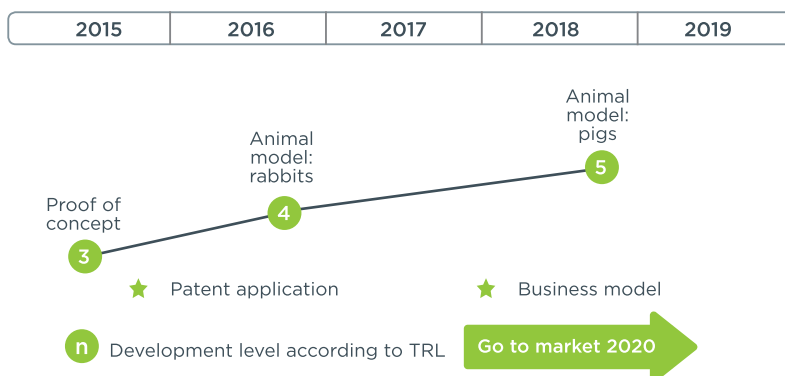
## ADVANTAGES

- > Provides immediate wound dressing.
- > Adaptable for different anatomical areas.
- > Excellent flexibility and resistance properties.
- > Safety and proven efficiency in animal model.
- > Antibacterial properties.
- > Does not contain components of mammalian origin.
- > Storage at room temperature.
- > Long shelf-life.

## INTELLECTUAL PROPERTY

Provisional patent filed.

## STATE OF DEVELOPMENT



## BUSINESS SUMMARY DEPARTMENT OF INNOVATION

The Dirección de Innovación of the Universidad de los Andes seeks to support, canalize and efficiently manage the results from research conducted at the University to the public and private sector, both national and international. This is done in order to promote the transfer and application of the knowledge generated in the University so as to benefit the society and contribute to the economic development.

> [INNOVACION.UANDES.CL](http://INNOVACION.UANDES.CL)

## PROJECT DIRECTOR

Javier Enrione Cáceres, food engineer, master and Ph.D. in food science and post doc in business administration.

> His research focuses on the characterization and design based on natural polymers, with applications in the food, pharmaceutical and biomedical industry.

## RESEARCH TEAM

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