

SOCKGEL

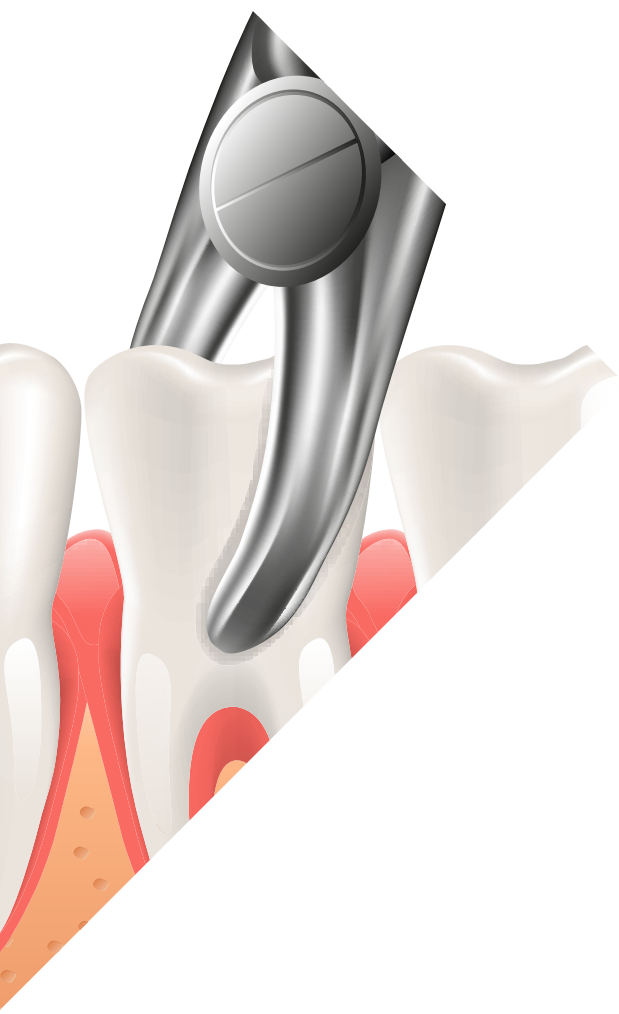
A NATURAL POLYMER-BASED, STIMULI-RESPONSIVE AND INJECTABLE HYDROGEL FORMULATION FOR USE IN DENTAL EXTRACTION SOCKET PRESERVATION.

MARKET

This technology is to be used following a tooth extraction where it is necessary to maintain the integrity of the alveolar socket. In the United States, 10 million tooth extractions are performed annually (not including wisdom teeth).

UNMET NEED

Exodontia (tooth extraction) is one of the most common dental procedures around the World. Generally, the resulting extraction socket heals uneventfully generating an osseous deformity, which results in requiring time-consuming secondary surgeries and the use of costly barrier membranes and/or bone grafts, prior finalizing the prosthetic restoration. On the other hand, the most common complication following tooth extraction is the development of alveolar osteitis (dry socket). This condition could lead to excruciating pain, halitosis, gingival inflammation or lymphadenopathy. In addition, the development and use of intra-alveolar dressing materials in combination with different medicaments has been widely suggested in the literature to prevent dry sockets and maintain the integrity of the alveolar socket, however an ideal dressing material has not been identified.



SOLUTION

Researchers at UANDES are developing an innovative self-assembled natural polymer hydrogel that is injected into the alveolar socket and has the ability that accelerates healing and promotes soft tissue epithelialization, which maintain and repair alveolar ridge height and width (socket preservation), reduce post-operative pain and discomfort, and prevent the incidence and development of alveolar osteitis.

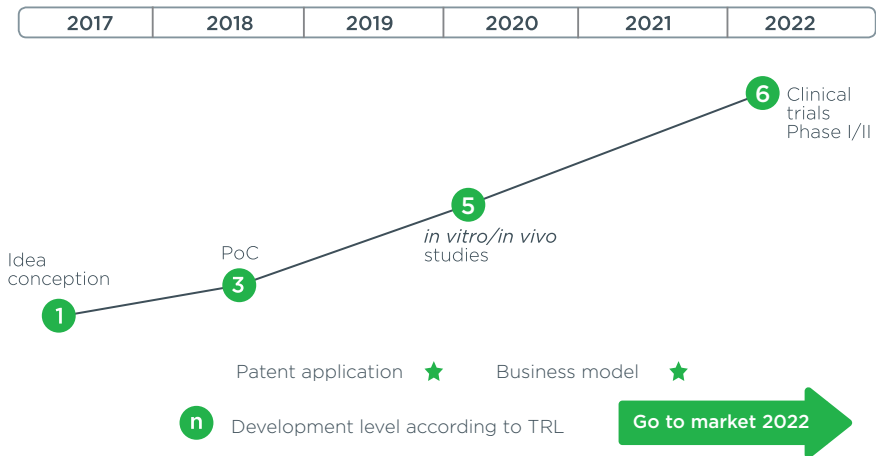
ADVANTAGES

The hydrogel is easy to handle, manipulate and apply. The hydrogel can be further advanced to incorporate drugs or stem cell nanocapsules, which can open doors for other potential therapeutic applications. Easy to use, scalable, cost-effective and safe.

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.

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PROJECT DIRECTOR

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> His area of expertise is the design of devices and biomaterials for regenerative therapy.

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