

AQUAHEAL3DII

3D Printed Biomarine Wound Healing Accelerant

About the project

This project combines all renewable, marine sourced products to create a 3D printed wound healing medical device. We will incorporate Regenics' bioactive substances from unfertilized salmon roe, HTX, into a topical wound healing dressing (class III medical device) for chronic hard-to-heal wounds. The components of the entire wound-healing device have a marine origin. The bioactive ingredient, HTX, is a patented (EPO patent granted December 2018) purified heat-stable component of unfertilized salmon roe cytoplasm; HTX has strong skin regenerative and anti-inflammatory activity. The project will deliver a 3D printed, bioactive, clinical safety-tested dressing, ready for clinical study in patients.

No dressings with integrated skin regenerating and anti-inflammatory properties are available. Therefore, Regenics' wound healing innovation is ground-breaking in advanced wound care. HTX has skin regenerative effects demonstrated in human explanted skin; these results have led to significant interest from one of the top 5 global wound healing companies in 2015. A successful project will provide a unique opportunity for the consortium to sign licensing agreement(s) with one or more of these companies. This will create jobs in the marine and healthcare sectors. HTX is versatile allowing inclusion in wound devices – including, patches, 3D-printed patches, sprays and creams. The present consortium will create a bioactive wound-healing patch with entirely renewable marine organisms: the patch is composed of 3D printed alginate and cellulose from seaweed and tunicates; the backing to the patch, alginate, originates from seaweed; and the bioactive HTX originates from salmon roe. The consortium consists of academic and industry partners that are leaders in their respective fields; having a history of academic and industrial success.



Project Overview

CALL 1 | 2019

Project Coordinator:

Henrik Lund, Oslo, Norway

Project Partners:

- Dr. Andy Makin, Citoxlab, Lille Skensved, Denmark
- Dr. Maria Lundin-Johnson, RISE Research Institutes of Sweden. Bioscience and Materials, Gothenburg, Sweden

Keywords:

All-marine sourced product, 3D printing, wound healing, bioactive, Class III Rule 13 medical device

Priority Area:

Exploring new bioresources

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1.009.462 euros *



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