Annex A Brief description of the training project

[to be replicated for each in the case of several training projects]

Title of the Training Project:

Evaluation of the use of high molecular weight reticulated hyaluronic acid specific for the oral cavity under extraction sockets

Description of the scientific and educational objective: *(min 1,000 characters - max 5,000 characters)*

[specify also the coherence with disciplinary and thematic areas consistent with the needs of the country, as well as of the regional territories covered by the program, in terms of high-skilled figures and oriented to meet the innovation needs of the companies referred to in the PNRR;]

Introduction:

In the tissue regeneration of soft and hard tissues of the oral cavity, new regenerative therapeutic options are proposed in support of standard procedures in cases of defects caused by traumatic or pathological injuries. Hyaluronic acid already known in other medical disciplines is one of the most powerful natural devices for the management of both hard and soft tissues, reducing the healing time of the same.

Objective:

The purpose of the proposed study is to compare the results of the use of hyaluronic acid in post-extractive. In this indication, especially if you want to have the option of implant insertion later, it is important to have the stabilization of the alveolar process and bone volume as well as tissue healing. The comparison is between three groups : a) without use of both hyaluronic acid and biomaterials, b) with only use of biomaterials, c) with use of both hyaluronic acid and biomaterials.

Materials and methods

The Materials provided are:
- High Molecular Weight Cross Linked Hyaluronic Acid (Hyadent BG)
- Collagen membranes
- Bone substitutes

Both qualitative and quantitative methods are used for measuring methods.
Expected results:
From the data published so far, with the application of hyaluronic acid as a support to biomaterials, we expect better clinical results for both hard and soft tissue regenerative purposes

Company Supervisor: Sebastiano Martelliano

Methods of carrying out training and research activities:

The training activities will be carried out through lectures on research methodology; Seminars on modern technologies in the field of periodontal regenerative medicine and surgery; and finally through discussion meetings of the articles already present in the literature.

The research activity will be directed in advance with the drafting of research protocols and then will be monitored weekly by scheduling organizational meetings to take stock of the progress of research.

Expected impact and results with particular emphasis on promoting economic development and the production system:

The PhD will have the opportunity to train highly qualified figures in the field of regenerative periodontology and materials such as hyaluronic acid applied to periodontal therapy

surgical and non-surgical. Such figures could find new professional opportunities within the companies promoting the economic development of the country and the improvement of the production sector of biomaterials and dental.

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The company Regedent Italia Srl will host the PhD student beneficiary of the scholarship funded from the resources of DM 352/2022 for n. 6 months (min 6 max 18) during the PhD.

Period abroad for n. 6 months (min 6 max 18) at the following institution:
University of Bern, Switzerland