Partnering Opportunity

Profile Status: Published

Research & Development Request

H2020 FTI: An Italian engineering company search private/public hospitals and companies to define an innovative bone spinal device

Summary

An Italian engineering company skilled in mechanics systems management is developing a FTI proposal (deadline: 22-10-2019) to validate an innovative bone fusion spinal device. The device is very competitive because it can be implanted percutaneously (with a minimal invasiveness) in day-hospital also by physicians radiologist and pain therapist. Partners sought are companies and private/public hospitals to define the device and test implants on their patients.

Creation Date	25 June 2019
Last Update	03 July 2019
Expiration Date	10 September 2019
Reference	RDIT20190625001
Public Link	https://een.ec.europa.eu/tools/services/PRO/Profile/Detail/3b3dbfe7-f513-4f62-81bb-e74b2db9bd97

Details

Description

The project coordinator is an Italian engineering company skilled in precision mechanics systems. Company already develop, patented and tested on corpses an innovative bone fusion spinal device (called QFusion) in collaboration with commercial companies operating in the spinal therapy and devices market.
Project goals are: device CE certification, pre-series production, validation with first users in private or public hospitals.
QFusion aims at a high level of satisfaction to patients who need a spinal stabilization surgery with bone fusion. The surgical procedures using QFusion will be performed percutaneously (minimally invasive) in day-hospital with less risk and discomfort for the patients because the health recovery will be faster. The QFusion device is designed to be simple, not bulky and easy to implant on the patient spinal column. Given that are performed in EU about 200,000/year

spinal stabilization surgery with bone fusion, the new device will have a high positive impact on the EU health system.
The QFusion implant tests on corpses, already performed by stakeholder radiologists, showed that QFusion performances are better than other device and spinal stabilization method: the grip stability is 100% higher than the best interspinal devices now on the market. Moreover, the new device price will be 10-15% lower than the other solutions having lower performances.
The QFusion patent is already registered. The CE certification to produce and introduce this new device on the market will be issued, within 2020, by authorized Agency (TUV). The applicant company will implement, during Innovation project, QFusion production process and certification as medical device (93/42/CE and 2007/47/CE, Class IIB device).

Partners sought are mainly private/public Hospitals interested to test the QFusion implants on their patients, but also commercial companies to distribute the QFusion device in their countries. The partner search is limited to the following Countries: France, Germany, Spain, Austria, Switzerland and United Kingdom.

Project proposal is targeted to Horizon 2020 Fast Track to Innovation Program – cut off date: 22 October 2019.

The partner search deadline is 10th of September.

Advantages and Innovations

QFusion will be performed percutaneously (minimally invasive) in day-hospital with less risk and discomfort for the patients because the health recovery will be more fast.
QFusion can be implanted percutaneously, by radiologists and pain therapist without send their patients to orthopedic surgeon (or neurosurgeon).This hospital day procedure will allow hospitals to reduce the patient's hospitalization by 2 days with consequent savings in costs and space.
Furthermore, QFusion will increase patient satisfaction by reducing health recovery time from 4 to 2 weeks. The main QFusion innovative features are:
• griping stability on the vertebral column, obtained by a greater number of grapping systems;
• very easy and quickly implant percutaneously;
• competitive price
The only fusion bone interspinous device actually available on the market is SPINEPLUS Minuteman, which however has the following disadvantage: it is larger than QFusion, involving more complications of the insertion, therefore it can be implanted with technique that can be defined semi-percutaneous (because it is a surgical intervention with a cut of more than 2 cm).

Technical Specification or Expertise Sought

The company is looking for hospitals and private clinics experienced in spinal surgery, with interest in implanting QFusion on their patients.

The collaboration of commercial health devices companies to promote and distribute QFusion and their countries is also welcome.

Stage of Development

Proposal under development

Comments Regarding Stage of Development

An Italian patent application was presented 23/03/2018 by applicant. The main Patent innovations, compared to other patents of similar devices, are: lower mechanical complexity, less space and less possibility of creating local traumas due to the crushing of the tissues by the jaws (device fixing wings).
Some of QFusion prototypes were implanted on corpses at an Italian Cadaver Lab by two radiologists project stakeholder; who verified the excellent performances related to ease and speed of the device insertion on the human body and to the vertebrae gripping stability. To implant on patients QFusion in EU countries, it is necessary CE certification related to the medical device (Annex IX - Council Rule 8, II b Class) Directive 93/42/EC. Certification documents are already work in process and will be issued by TUV certification body probably in 2020.

IPR Status

Design Rights,Patent(s) applied for but not yet granted

Comment Regarding IPR status

An Italian patent application was presented 23/03/2018 by applicant company.

Keywords

Technology

06001002	Clinical Research, Trials
06001017	Surgery
06001020	Physiotherapy, Orthopaedic Technology

Market

05003003	Surgical implants
05004006	Surgical instrumentation and equipment
05005015	Orthopaedics

NACE

M.72.1.9	Other research and experimental development on natural sciences and engineering

Network Contact

Issuing Partner

ZACHODNIOPOMORSKI UNIWERSYTET TECHNOLOGICZNY W SZCZECINIE

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Open for EOI : Yes

Dissemination

Restrict Dissemination to Specific Countries

Austria, France, Germany, Spain, Switzerland, UnitedKingdom,

Client

Type and Size of Organisation Behind the Profile

Industry SME 11-49

Year Established

1991

Turnover

1 - 10M

Already Engaged in Trans-National Cooperation

Yes

Experience Comments

The company is co-owner of an US company that sells also health equipment (at the moment especially in the veterinary sector)

Languages Spoken

English

Client Country

Italy

Partner Sought

Type and Role of Partner Sought

The company seeks expertise in spinal surgery from Hospitals Health Research Centres or private Clinics interested in test and implant QFusion on their patients.

The collaboration of commercial health devices companies to promote and distribute QFusion in their countries is also welcome

Type and Size of Partner Sought

SME 11-50,R&D Institution,SME <10,251-500,SME 51-250

Type of Partnership Considered

Research cooperation agreement

Program - Call

Framework Program

H2020

Call title and identifier

Horizon 2020 Fast Track to Innovation

Anticipated Project Budget

1,500,000

Coordinator Required

No

Deadline for EOI

10 Sep 2019

Deadline of the Call

22 Dec 2019

Project Duration

156 week(s)

Weblink to the Call

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/eic-fti-2018-2020;freeTextSearchKeyword=Fast%20track%20to%20innovation;typeCodes=1;statusCodes=31094501,31094502;programCode=null;programDivisionCode=null;foc

Project Title and Acronym

High Quality bone Fusion device for spinal disease “QFusion”